

**FROM THE HANDS OF QUACKS:
AURAL SURGERY, DEAFNESS, AND THE MAKING OF A
SPECIALTY IN 19TH CENTURY LONDON**

BY JAIPREET VIRDI-DHESI

A thesis submitted in conformity with the requirements
for the degree of Doctor of Philosophy
Institute for the History and Philosophy of Science and Technology
University of Toronto

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“FROM THE HANDS OF QUACKS:” AURAL SURGERY, DEAFNESS, AND THE MAKING OF A SURGICAL SPECIALITY IN 19TH CENTURY LONDON

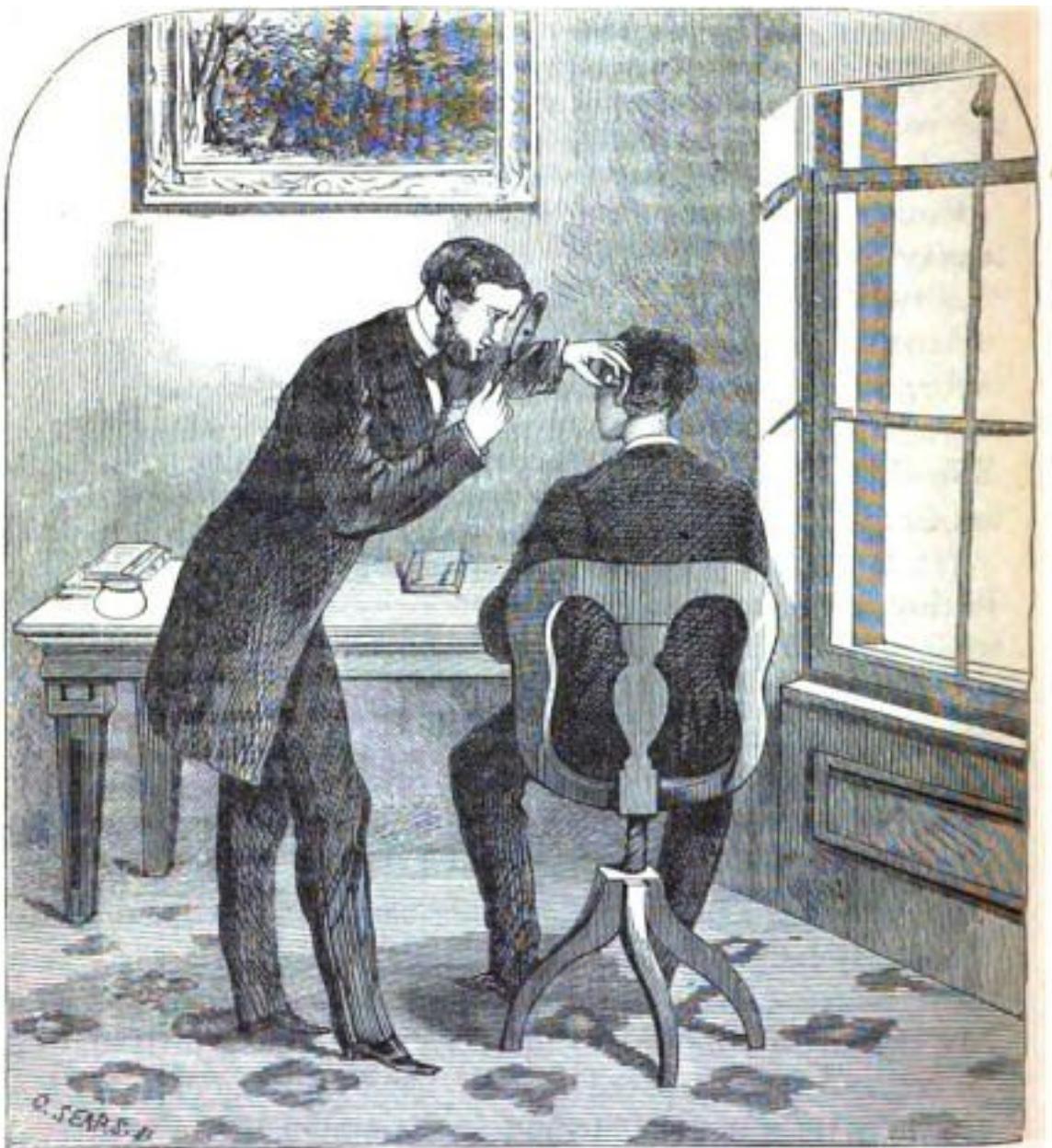
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NOVEMBER 2014

ABSTRACT

This dissertation critically examines the social and medical perceptions of nineteenth-century British aural surgery, a subset of medical practice providing treatments for aural diseases. Tracing the efforts of a particular group of London-based aural practitioners (“aurists”) and their visions of a specialist identity, this dissertation explores how medical legitimacy was founded within a field constantly battling accusations of charlatanry. As aurists fiercely competed with each other for positions, status, and patients, accusations of quackery weakened their attempts to forge authority as skilled experts. Questions of credibility grazed the boundaries between authority and legitimacy as aurists not only defended their speciality from the broader medical occupation, but also from a social prejudice that deemed deafness medically incurable. Aurists thus used the rhetoric of “medical science” to invoke particular representations on how they wanted to define their surgical authority and be perceived by the broader medical community. From an examination of various strategies aurists used to construct their surgical authority, this dissertation highlights the resonances between quackery, entrepreneurialism, and legitimatization; “quack” was a highly ambiguous term generally used to disqualify an adversary

or competitor, or to dismiss a particular medical procedure or technology. This dissertation is divided into five chapters, with each chapter showcasing the varied ways in which aurists constructed their identity and shaped their claims to legitimacy: from publicly disputing rules against medical intervention at deaf asylums, creating specialty hospitals, increasing publications of aural treatises, and developing newer diagnostic, therapeutic, and assistive instruments.



"Method of Examining the Ear"

Source: Anton Von Tröltsch, *Treatise on the Diseases of the Ear*, trans. D.B. St. John Roosa (William Wood & Co.: New York, 1869)

For the women who first told me there are stories worth remembering:

*My mother, Paramjit Virdi, and
My teacher, the late Mrs. Janet Ower*

ACKNOWLEDGEMENTS

I first encountered the story of aurists while searching through the stacks of the “Old Catalogue” of Gerstein Library for a book on nineteenth-century anatomy. The title of the book now escapes me, for where it should have been on the shelf, was John Harrison Curtis’ *A Treatise on the Diseases of the Ear*. I sat there on the floor, gently flipping through the pages, and finding myself lost in Curtis’ detailed descriptions of deafness. A quick Google search further piqued my curiosity as descriptions of Curtis as a “notorious aurist” seemed to contradict what I had just read. So I would like to first thank the person who removed the anatomy book; otherwise this would have been a completely different dissertation.

The whole reason I was searching for the book on anatomy was to choose a new topic for my course paper for Lucia Dacome’s class on the history of medicine. Having spent five years studying philosophy before entering graduate school, I had tremendous difficulty retraining my thinking and learning how to write history. It took me a while to even understand what a historiography was. I want to thank Lucia for not only introducing me to a remarkable area of research, but for agreeing to supervise and guide me on a new path of scholarship. She patiently showed me how to address key intellectual issues I raise in this dissertation, scolded me when I fell in the traps of anachronism, and encouraged me to break out of my shyness and present my work at international conferences. The sense of marvel I initially felt in her course has created a deep and permanent love of history. I am a historian and a scholar only because of her continual encouragement and support.

Janis Langins and Neita Israelite formed the other two-thirds of my supervisory committee. I am so grateful to them for their confidence and support in my project. Janis returned chapter

drafts full of provoking questions, forcing me include more aspects of French medicine and strengthen my analysis. I also benefited from his corrections of my gender of French nouns. Neita's energy and enthusiasm made our lively conversations over coffee all the more memorable. Not only did she clarify pivotal moments in deaf history for me, but she also outlined several avenues I could use to create a more interdisciplinary focus for my dissertation. I would also like to thank Lori Loeb and Chen-Pang Yeang, who served on my oral exam. Their insightful and thoughtful questions created a stimulating conversation and raised crucial points for me to address in future publications. Michael Brown served as my external examiner. I have long admired his work on medical culture and have the honour of being his first external Ph.D. examination. In his report, he highlighted key historiographical issues for me to address, providing invaluable comments and suggestions for reshaping my work into a monograph. I look forward to continuing our conversations down the line.

Throughout this project, the Institute for the History and Philosophy of Science and Technology at University of Toronto created an incredibly positive and collegial environment for me to work in. I've been lucky to grow and work alongside an astonishing group of scholars. Denise Horstley and Muna Salloum were more than administrative wonders: they were my cheerleaders. Marga Vicedo, Mark Solovey, and Paul Thompson offered advice for navigating the threshold of graduate school and frequently inquired about how my research was going. As my project heavily relied on archives in England, the department generously supported me through several travel grants. Lunchtime brownbag sessions provided me with opportunities to present my work in an informal setting; I am thankful for all of those who turned up for free sandwiches and/or pizza and took the time to think of thoughtful questions even when I didn't make any sense.

I am especially thankful to my fellow graduate students for our random conversations, though at time serving as a distraction, nevertheless helped me to tie together intellectual threads: Isaac Record, Ari Gross, Erich Weidenhammer, Aaron Wright, Cory Lewis, John Christopoulos, Paul Greenham, Chris Belanger, Kira Lussier, Anthony Kulic, Nico Saldias, and Jon Turner. Delia Gravus serves as an incredible inspiration as a writer and historian. She read key aspects of my work and cheered me on from afar. Charissa Varma delighted me with enlightening and entertaining chats. She also provided her hospitality during a visit to Cambridge and made sure I embraced the full glory of natural sciences with a tour through the Darwin Correspondence Project. Special thanks are owed to Mike Stuart, who sometimes took upon the dangerous task of untangling my web of thoughts. Our many conversations and paper exchanges helped to keep my head in order. Thank you for editing so much of my work and for believing in me—especially at times I found it impossible to continue forward.

The CGS Doctoral Grant from the Social Sciences and Humanities Council of Canada gave me the financial flexibility to take long winters off and write in isolation. Travel grants from the School of Graduate Studies at University of Toronto provided immense support during long research trips. Chapter drafts were presented at various conferences and workshops. I'm grateful to audiences at these meeting and to the following societies for financial support that enabled me to participate: the Canadian Historical Association (2009), Society for the History of Technology (2009), the local organizing committee for the International Congress in History of Science and Technology (2009), the Canadian Society for History and Philosophy of Science (2012), the History of Science Society (2012), and the Disability History Association (2012). I'm also thankful for the University of Toronto for a fellowship while I was doing my masters studies and to the National Science Foundation for a grant in 2009 for additional support for the ICHST meeting.

The final stages of completing my draft were undertaken in residence at the Max Planck Institute for the History of Science in Berlin on a pre-doctoral fellowship. I am tremendously grateful to Sabine Arnaud for initially inviting me to present at the Deaf World/Hearing World workshop and then offering me the fellowship. Our research interests overlapped at certain intersections and her invaluable insight has strengthened my analytical framework for chapter five. Special thanks are to fellow members of my research group: Raluca Enescu who kept me company during our occasional office hours and Debolina Dey for being a wonderful, curious, and creative person I am glad to count as a friend—we spent many hours together locked in our office, sitting in the courtyard, or making excursions to the market to delight in the variety of German cuisine. Mara Mills also arrived to MPIWG during my last month. I thank her for her patience for the many occasions I dropped by her office unannounced to share a new research find or ask yet another question, and for her friendly counsel in improving my research on hearing aids. The MPIWG library staff deserves all my praise for their tireless efforts to ensure any book I ordered was effectively delivered to my desk as soon as possible. As it can be daunting to reside in a foreign country, homesickness can be tended by the kindness of friends: special thanks to Brigit Ramsingh for making sure my transition was an easy one, and to Anja Peters for welcoming me into her beautiful home and letting me fall in love with her family.

This work owes so much to the generosity of librarians, archivists, and curators who unfailingly tracked down records and manuscripts for me, especially through correspondence. These include: Philip Skroska at the Bernard Becker Medical Library; Jim Edmonson at the Dittrick Museum; Katherine Ott at Smithsonian; John W. Hawks at the Kenneth Berger Hearing Aid Museum; Wellcome Library and Archives; the Bodleian Library; the London Metropolitan Archives; Louise King at the Archives of the Royal College of Surgeons, England; the Science

Museum Archives in London; the Royal Society of England; the Toynbee Collection at the Hunterian Museum; the British Library, especially for tracking down nearly-lost copies of *The Aurist*; Kate Collins at Duke University Special Collections; Stephen Potter at Southwark Local Archives; and the UK National Archives. Matt Edwards from the Gerstein Science Library at University of Toronto not only placed interlibrary orders from me, but kindly decided to deal with communication confusions by personally emailing me every time my materials arrived. I owe a tremendous debt of gratitude to Dom Stiles at the UCL Ear Institute and RNID Library. Dom not only tracked down sources for me, but eagerly shared his own research with me. I enjoyed our countless of discussions over coffee, lunch breaks, dinners, and emails over the years. He has been my rock and I'm happy to count him as a friend. Of course, sometimes there are times that archival research encounters roadblocks. I'm thankful to John Hay and Peter Jackson for making inquiries on my behalf to access the archives at the Royal School for Deaf Children, Margate, even though at the end, I was denied access.

I'm grateful for the incredible support from esteemed scholars who provided me with sage advice, read my work, and provided instrumental feedback: Graeme Gooday and Karen Sayer for sharing their research on hearing aids and for being wonderful friends; Christelle Rabier who cleaned up an untidy draft of chapter 4; Carl Benn for providing me with office space at Ryerson's History department and encouraging me to finish chapter 2 while teaching; Bob Ruben for sharing his otolaryngology collection with me; Albert Murdy and Mark Newman for clarifying medical terminologies; the anonymous referees and editors at *Bulletin of the History of Medicine* for their comments and permission to reprint parts of the paper in chapter 4; John Hay for inviting me to publish an extract of chapter 1; Esme Cleall for helping me navigate through disability history; Jayne Elliot who commented and edited an earlier draft of chapter 3; and Garland E. Allen who

dispensed his wisdom on publishing. My dissertation grew up as the history of science landscape on twitter and the blogosphere was exploding. I'm grateful to Thony Christie, Greg Gbur and Michael Barton for introducing my blog posts on *From the Hands of Quacks* to other online scholars and helping me establish a virtual presence. This may be unconventional to traditional academia, but followers of my blog, including on twitter and facebook have continuously shared my love of history and motivated me to keep writing. Karen Bourrier invited me to participate in *Nineteenth-Century Disability: Cultures & Contexts*, encouraging me to branch out of my comfort zone and explore the material culture of hearing aids. Lindsey Fitzharris-Bracken also provided inspiration for navigating between digital humanities and public history. We bonded over our love for syphilis stories, quirky histories of medicine, and bottles of shiraz.

David Pantalony deserves his own paragraph. I have been blessed in having him as a mentor. He tirelessly kept me on track with my research, sending emails asking for updates, and guiding me with difficult moments of analysis. He read incoherent drafts of chapters, highlighting the strengths and forcing me to address the weaknesses. A trip to Ottawa for the Reading Artifacts Seminar introduced me to different elements of material culture research, but David further took me backstage to allow me to see how my artistic eye can introduce new dimensions for artefact analysis. It goes without saying that so much of David is reflected in my growth as a scholar and in future directions of my research; he was the first person I emailed when stuck on a research problem and frequently served as a tremendous source of strength. I am eternally grateful for how he put me in touch with scholars whose influence I could benefit from, how he sent me applications for fellowships, and how he unfailingly provided me with moral support and encouragement. His enthusiasm and insight made me determined me to finish this project. I owe so much to him.

Finally, I thank those I consider my family, who frequently dealt with my prolonged absences and crankiness through many long periods of writing. Teresa Branch-Smith, Colleen Burns, Menolly Lysne, and Sarah Kay dealt with cancelled plans and neglected phone calls, but never let me forget the importance of glamour. Zonna Khalid provided years of moral support and joined me on several research trips, reminding me to have fun and leave work behind once in a while. Lucy and Gizmo kept me company during many cold winter days, showering me with unconditional love and reminding me even bad days can end up good. My in-laws purchased a beautiful desk for me, making me feel so welcome into their family. My mother has been a constant source of inspiration, strength, and devotion. I am especially grateful to my siblings for being a source of love, encouragement, and support, especially during trying times. My brother Jaskaran teased me for reading too much, but that didn't stop him from helping me organize my files before I started on this huge project. My sister Pooja was a frequent source of comedic relief. More than that, she helped me study my French, accompanied me on research trips, and every once in a while, asked me how "Curtis that aurist you never shut up about" was doing. When we were growing up, my sister Sundeep and I spent so many sleepless nights discussing philosophy and history. Nothing really changed, though she deserves her thanks for helping me frame the narrative thrust of my dissertation while she was finishing her own Masters thesis. She is courageous and wonderful and I am so grateful for her support.

And to Harry: there were so many moments you couldn't understand what I was doing, or even why I was doing it. I love you in ways I could never adequately express though words. You quietly accompanied me on this journey and had the difficult task of dealing with my mood swings, my constant travels, and moments of sleep-deprived insanity. Thank you for putting up with me. Thank you for always making sure I never fly too close to the sun.

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LIST OF PROMINENT AURISTS IN LONDON, 1800-1860

JOHN CUNNINGHAM SAUNDERS (1773-1810)

Born in Devonshire Country and studied at a seminary at Southmolton until 1790. Soon after, apprenticed to surgeon John Hill of Barnsable and continued his education at St. Thomas and Guy's Hospitals, where he trained under Sir Astley Cooper. *Anatomy of the Human Ear* (1804) was his most significant publication. Also established the London Infirmary for Diseases of the Eye and Ear on Charterhouse Square with John R. Farre. Died in 1810 following an unknown infection.

WILLIAM WRIGHT (1773-1860)

Established career in Bristol in 1796, but relocated to London and acquired a practice on 15 Princes St., Hanover Square. Published a variety of treatises on diseases of the ear between 1815 and 1860. Most notable for his work with Hannah Thatcher, who regained her speech and part of her hearing; the case impressed Queen Charlotte, who eventually hired him as her "Surgeon-Aurist-In-Ordinary." The Duke of Wellington was also amongst Wright's most famous patients.

WILLIAM MAULE (c.1775-1851)

Very little is known about him other than he was the Royal Aurist to King George IV.

JOHN HARRISON CURTIS (1778-1856)

Born in Uxbridge, relocated to London after his dismissal from the Royal Navy. Founder of the Royal Dispensary for Diseases of the Ear (est. 1816), the first national institution specializing in aural disease in England. King George IV, the houses of Cumberland, York, Kent, and Gloucester were amongst his clients. Between 1816 and 1845, he published numerous treatises that argued against conventional perceptions of deafness as incurable. His first publication, *A Treatise on the Physiology and Diseases of the Ear* (1817), reached six editions in his lifetime and was translated into French and German.

JOHN STEVENSON (1778-c.1844)

Trained at St. Thomas and Guy's Hospitals; studied at John Cunningham Saunders' Infirmary. Aurist to Princess of Wales and Leopold, Duke of Saxe-Coburg-Saalfeld. Published *Deafness, its Causes, Its Causes, Prevention and Cure* (London: Henry Colburn, New Burlington Street, 1828).

ALEXANDER TURNBULL (c.1794-1881).

Born in Scotland, received medical diploma from Edinburgh University in 1821. Spent his early career in Carlisle and Hull, before relocating to Russell Square, London. After a series of scandals he left London to Edinburgh and Glasgow in the 1840s, before heading to the United States. Settled in Charleston sometime during the 1850s.

JAMES YEARSLEY (1805-1869)

Born in Cheltenham, Gloucestershire, worked as an apprentice to Ralph Fletcher, a well-known surgeon residing in Gloucester. Studied at St. Bartholomew's Hospital, received diploma of membership to Royal College of Surgeons and a licentiate of the Society of Apothecaries in 1827. Further credentials were received late in his career: a licentiateship from the Royal College of Physicians, Edinburgh, in 1860, and a MD from St. Andrew's University in 1862. Founder of the Institution for Curing Diseases of the Ear (est. 1837), notable for his work on ear-nose-throat diseases and his development of the artificial tympanum. Was also editor of *Medical Circular* and founder of the *Medical Directory*.

JOSEPH TOYNBEE (1815-1866)

Born in Heckington, Lincolnshire, apprenticed under William Wade at the Westminister General Dispensary, studied at the Great Windmill School of Medicine, and at St. George's and University College Hospitals. Earned a reputation as a remarkable dissector and anatomist, eventually working with Joseph Swan and Robert Owen at the Hunterian Museum. Became first Aural Surgeon at St. Mary's Hospital in 1852. Notable for his dissection researches into the ear, his artificial tympanum, and his comprehensive *Diseases of the Ear* (1860). Died in 1866 following an accidental inhalation of chloroform during an experiment for tinnitus.

WILLIAM HARVEY (1805/6-1876-9)

Educated at Guy's Hospital. Acquired the Royal Dispensary for Diseases of the Ear in the 1840s and served as the Dispensary's Director. Most notable publication was *The Ear in Health and Disease* (1854).

PROLOGUE

A LETTER FROM A.S.S.

In 1823, a letter—perhaps discarded, perhaps fallen—was found near the Old College in Warwick Lane, apparently penned by a young country surgeon signed “A.S.S.” to his physician friend in London. The discoverer sent the letter to *The Mirror of Literature*, the popular penny magazine, so that readers delighted on the topic of medical quackery could have a peek. After debating—or complaining—about the prominence of quacks in medicine, the young surgeon declared his career intentions:

When I come to town I must fall in with the custom I suppose, and *publish a book*. As I shall not have *time* to do this myself, some compiler must be found, who can furbish up an old anatomical description of the ear, and with an account of my *new methods* of treatment, make up a *small octavo*. He must also write some *lectures* for me, but we must be sure to engage a man that can be depended on, one that will not *betray* the *secret*. Then with a view to *appear of consequence*, I should have *foreign correspondence*; but I shall *really obtain* them, as I shall visit Paris, Berlin, Vienna, &c. Here I shall have a decided advantage over some of my contemporaries, for as you know I am acquainted with the languages, and at any rate I shall not become a *laughing stock* to foreign servant and my English companions in the *Diligence*, as a certain *learned* professor of the healing art did a few months ago. As the expense of house, furniture, advertisements, &c. will be very considerable, I must get my relative, who seems to approve of the plan, to advance some cash, and use all his electioneering interest to obtain for me an appointment to royalty; I shall then form a *dispensary* for the poor, and you must look out for me a good collector, well acquainted with all the *charitable* and *humane* in the metropolis; if he has a long *puritanical* face, so much the better. There are many of this sort, I learn, who gain a comfortable living by the poundage they receive. If the fellow is not dead, who for many years lived in a state of affluence in the Fleet-Prison, upon the donations his advertisements produced, and which generally began, “*Oh that the eye of pity may meet this,*” I think he would suit admirably; at any rate he must be a *sturdy beggar*, and quite up to “*everything in the world*.” You shall be consulting physician; I hope, therefore you are F.R.S. and F.M.S. as well as M.D. Then we must have a secretary, a *Mister* will do for that very well; our chemist shall be styled *Esquire*, as well as *myself*—he must be our treasurer, and I shall be surgeon of the new

institution. There must also be plenty of bankers, and though last, not least, we must have a long list of patrons, presidents, vice-presidents, and governors, the higher the rank the better; the Court Guide will here be of service to us, as we can select their names from that; if they grumble at the use of their names without permission, we must point out that it is a *pious fraud*, to serve the cause of heaven-born charity; that this virtue "*covert a multitude of sins!*" so self-interest will whisper, that they will do well to sit quietly under its mantle...After paying for *house-rent, advertisements*, and some *furniture*, we must have a good dinner or two (i.e. the officers of the institution, and a few of their friends) which must be advertised as a meeting of the governors: I must be *complimented* with a *piece of plate*, out of the surplus money, for my *wonderful* services rendered to this poor: we must safely state the numbers of those *cured*, as being nearly, or quite equal to the number received; no one will know the *real truth*, or think it worth his while to inquire; and being inserted in the public papers, it will serve as a good *decoy*, bot to bring me *patients* and keep up the *funds* of the charity.¹

Who this young country surgeon is, we do not know. Clearly the letter is a satire, but the tale is one quite familiar to those practicing aural surgery in nineteenth-century London.

¹A.S.S., "Medical Quackery," *The Mirror of Literature, Amusement, and Instruction*, 29 (17 May 1823), 456-7.

INTRODUCTION

THE MAKING OF AURAL SURGERY

In a 1908 paper read before the British Deaf and Dumb Association in Edinburgh, Reverend Bodvan Anwyl (1875-1949) remarked that he saw no distinction between “advertising quacks” and non-advertising medical specialists who professed to employ a “cure” for deafness—specialists known as aural surgeons, or “aurists.” Anwyl’s statements were thoroughly dissected by Evan Yellon, editor of *The Albion Magazine*, who spent much of his career exposing “quack curers” of the deaf. To Yellon, there was a world of distinction between the qualified specialist and the quack:

In the one case you have a man upon whose earliest education a very fair sum of money and considerable care will have been expended, and whose special education and training will have required the sinking of a round sum in capital...He labors unceasingly to discover new methods of procedures and new remedies, and by the austere etiquette of his profession he may keep no discovery to himself...On the other hand, in the quack, we have, in the vast majority of cases, a man who does not possess even a sound general education, and who very often does not understand the elements of ordinary personal cleanliness.¹

Anwyl’s reply to Yellon clarified that the distinction was not an ontological one, i.e. a distinction between *kinds* of practitioners, identified on the bases of attributes such as skills and education. Rather, it was a modal distinction about whether certain practitioners could, in fact, cure deafness. There was no solid evidence, Anwyl explained, of a cure being performed by specialists: “And if we had a few instances of cures by fully qualified aurists, by what manners of fairness or common

¹ Evan Yellon, “Qualified Specialists Versus Quacks,” *The Albion Magazine* vol. 1, no.7 (August-September 1908), 125.

honesty could we accept them, while rejecting the quack?"² This exchange between Anwyl and Yellon is reflective of the ambiguous reputation of British aural surgery, whose quest for specialization was fraught for most of the nineteenth century. In a constant battle against charlatanism, aural surgeons aimed to redefine the parameters of their field and construct career structures that were aligned with the rhetoric of nineteenth century "medical science."

From the Hands of Quacks aims to unpack the meanings and identities of individuals who ventured into the practice of aural surgery and sought to distance themselves from practitioners identified as "quack aurists." This dissertation explores the paradoxical and ambiguous nature of a field that was criticized by its contemporaries for its "shroud of quackery, medical as well as popular;" condemned as a "fashionable physic" for the aristocratic; and even perceived as a barrier to deaf education. The fluid and nuanced structure of the field was often defined by the very practitioners who portrayed it, as they reconstructed new standards for practice in their claims for legitimization. By examining the ways medical and surgical identities intersected with cultural values and claims to specialized knowledge, this dissertation suggests that attacks and accusations of quackery among aurists could be interpreted as disagreements in identity and performance, an expression of what they imagined themselves to be doing as a specialty and how they fashioned themselves accordingly.³ Concentrating on a select group of London-based aurists whose networks overlapped with each other—William Wright (1776-1860), John Harrison Curtis (1778-1856), James Yearsley (1805-1869), and Joseph Toynbee (1810-1866)—this dissertation historicizes the role of aural surgery in Britain by placing it within the social matrix that brought

² Bodvan Anwyl, "Quacks and Specialists, Once More," *The Albion Magazine* vol.1, no.8 (October-November 1908), 144-145; 145.

³ Michael Brown, "Medicine, Reform, and the 'End' of Charity in Early Nineteenth Century England," *English Historical Review* 124 (Dec. 2009): 1353-1388.

together practitioners in search of legitimization, the entrepreneurial character of the nineteenth century medical world, the importance of patronage and philanthropy, as well as the broader social perceptions of deafness.

This dissertation firmly entrenches the history of British aural surgery at the intersection of deaf studies and medical history.⁴ As scholars have asserted, the deaf have been historically served as an icon for complex intersections of subject, class, and the body, categorized and defined by their place in society.⁵ The concept of deafness has also been used to describe how different social groups perceived the deaf, and how these perceptions clashed, moulding and shaping the experiences of deaf individuals. Aural surgeons, in addition to making numerous contributions to their field—anatomical inquiries into the structure of the ear, debates on the physiology of various aural diseases, experimentation with treatments—attempted to merge their medical treatments with social welfare, suggesting education, training, or charity in cases when medical or surgical “cures” have failed. Some of these surgeons also crossed the boundaries of their authority, petitioning educational asylums for appointments, writing on the suffering of the deaf in order to advocate more intensive surgical operations, or even drastically undermining the value of educational asylums for the deaf.

Disability historians have outlined two different models for assessing the history of disabilities. The first, the “social,” or “minority,” model, defines disability as a social construct, with

⁴ As Beth Linker outlines in her *tour de force* of the borderlands of medical and disability history, “even if we adhere to a diagnostic-centric vision of medical history, there is still a place for disability.” Beth Linker, “On the Borderland of Medical and Disability History: A Survey of the Fields,” *Bulletin of the History of Medicine* 87.4 (2013). See also the commentaries on Linker’s paper by Daniel J. Wilson, Catherine Kudlick, and Julie Livingston in the same volume. See also: Catherine Kudlick, “Disability History: Why we need another “Other,”” *The American Historical Review* 108.3 (June 2003): 763-793.

⁵ Lennard Davis, *Enforcing Normalcy: Disability, Deafness and the Body* (New York & London: Version Books, 1995); Susan Gregory and Gillian M. Hartley (eds), *Constructing Deafness* (London & New York, 1991).

impairment to be historically examined through the prejudices, limitations, and marginalization faced by individuals with disabilities. This model was advocated by disability scholars as a response to the dominant “medical” model, which, since the early twentieth century, classified disability as a pathology and categorized any impairment against the “normal body” as requiring “medicalization.” Under this model, every aspect of an individual’s life with a disability is constructed as abnormal, requiring intervention at the level of experts, institutions, and even governmental intervention.

Yet the distinctions of the “medical versus social” models cannot be adequately applied to contextualize and analyze the interactions between aurists and the deaf. The aurists in this story sit at the intersection between the social and medical models. They saw deafness as a problem to be solved, but at the same time, they did not necessarily subscribe to all the characteristics outlined by the medical model. For instance, while they pushed their medical agendas—especially at educational asylums for the deaf—they also maintained that sign-language and a community of like individuals was beneficial for improving the lives of the deaf who were unresponsive to medical or surgical intervention. Moreover, the writings of the aurists reveal that they saw no boundaries between the social and the medical, claiming improving the lives of the deaf was a civic as well as an individual responsibility. To destabilize the medical model and evaluate the developments of aural surgery within the social model, I anchor my analysis on Andrew Abbott’s argument of “jurisdiction:” how different groups have competed and negotiated to control a particular area of social activity, or need.⁶ The emergence of a profession and its authority, according to Abbott, resides on its achieved rights to that jurisdiction, where its boundaries for

⁶ Andrew Abbott, *The System of Professions: An Essay on the Division of Labor* (Chicago: University of Chicago Press, 1988).

access are drawn and constantly negotiated with other professions. In the case of aural surgery, its boundaries were negotiated not only by other medical professions who questioned the legitimacy of the speciality, but also by educators who disregarded all forms of medical intervention for "curing" deafness.

To examine the boundary negotiations, the broad argument in *From the Hands of Quacks* is that the development of aural surgery as a speciality was driven by how aurists sought to eradicate the rhetoric of "popular prejudice," a social framework undermining the medical and surgical necessity of treatment. This rhetoric contributed to the field's state of uncertainty in three ways: dangerous and ineffective procedures undermined the field's surgical authority; the prevalence of practitioners boasting "miraculous cures" made it difficult to withstand accusations of quackery; and vociferous disagreements among aurists over diagnosis and treatment challenged their claims for specialization. "Popular prejudice" not only contributed to the self-fashioning of aural surgeons as experts, but also defined roles for deaf individuals and the expectations that were required of them. In particular, the rhetoric stressed what Anne Borsay identifies as the idea of "rescue" from a state of savagery: the deaf were helpless fellow creatures worthy of charitable paternalism, and crude medical and surgical experimentation did not fit into that construction. Each chapter in this dissertation narrates the various ways in which aurists challenged the "popular prejudice," and how, in so doing, shaped elements for building a foundation of their speciality.

In historical accounts of late eighteenth and early nineteenth-century charity, one of the key themes to emerge has been the role of charitable institutions as extensions of power relations and policy development. Charity combined with public sympathy for the deaf in nineteenth-century Britain was in part due to the realization that "something could be done," thus leading

some individuals to demand that something *should* be done.⁷ Here, a crucial point for analysis is raised: what exactly should be done? Should the deaf be maintained as objects of philosophical discourse, revealing insights into (sign-) language and communication, or as objects of charity that need to be rescued, trained, and restored to civilization? Or were the deaf merely individuals with physiological and/or psychological defects requiring medical intervention and/or surgical procedures to return to their full (normal) state as human beings? These are the very questions that nineteenth-century aurists faced as they attempted to establish a precise and specialized surgical identity for themselves.

THE “IMAGINATIVE AUDIOLOGICAL DIVIDE”

The history of aural surgery is inseparable from the history of deafness, for the experiences of deaf individuals were often understood, if not perceived, by hearing people. This perception, what R.A.R. Edwards terms as the “imaginative audiological divide,” forces the realization that there is a tremendous gap in historicizing the experiences of the deaf from the view of hearing individuals and from deaf individuals.⁸ I connect my analysis of aural surgery to disability history, particularly on the history of deafness, to assess the social parameters of deaf experiences in nineteenth-century London. In deaf history, medical intervention is catalogued as a dark chapter, with many scholars subscribing to Harlan Lane’s work which challenged the idea that deafness

⁷ Kenneth W. Hodgson, *The Deaf and their Problem: A Study in Special Education* (London: Watts & Co., 1953), 156.

⁸ R.A.R. Edwards, *Words Made Flesh: Nineteenth-Century Deaf Education and the Growth of Deaf Culture* (New York and London: New York University Press, 2012).

was something to be “conquered.”⁹ Pioneering a deaf-focused history, these scholars examined prejudices over sign-language and the construction of the deaf identity, at times even viciously attacking those who pushed forth the “medicalization” of the deaf.¹⁰ As useful as these works are for providing deaf-focused narratives from the vantage of point of the deaf instead of their hearing benefactors, with some exceptions, they fall short of acknowledging the role of medicine outside of surgeons and educators.¹¹ Individuals with hearing loss sought out cures and treatments for their hearing loss, and this is something that should be evaluated alongside educational efforts for the deaf, which was formally established in 1760 with the founding of schools for the deaf by Abbé Charles Michel de l’Èpee (1713-1789) in Paris and Thomas Braidwood (1715-1806) in Edinburgh.

⁹ Harlan Lane, *When the Mind Hears: A History of the Deaf* (New York: Random House, 1984); Harlan Lane, *The Mask of Benevolence: Disabling the Deaf Community* (New York: Alfred A. Knopf Inc., 1992).

¹⁰ Here, “medicalization” refers to the pathologization of deafness, in which medical experts, institutions, and care defined and maintained care for the deaf individual. Carol Padden and Tom Humphries, *Deaf In America: Voices from a Culture* (Boston, Mass., Harvard University Press, 1990); Renate Fisher (ed.), *Looking Back: A Reader on the History of Deaf Communities and their Sign Language* (Signum Press, 1993); Katherine A. Jankowski, *Deaf Empowerment: Emergence, Struggle, and Rhetoric* (Washington, D.C.: Gallaudet University Press, 1997); Owen Wrigley, *The Politics of Deafness* (Washington, D.C.: Gallaudet University Press, 1997); Lucy Yardley, “The Quest for Natural Communication: Technology, Language, and Deafness,” *Health* 1.1 (1997): 37-55; Harlan Lane, “Do Deaf People have a Disability?” *Sign Language Studies*, vol.2 no.4 (Summer 2002): 356-379; Anne Waldschmidt, “Normalcy, Bio-Politics and Disability: Some Remarks on the German Disability Discourse,” *Disability Studies Quarterly* 26.2 (2006): 42-54.

¹¹ Nora Ellen Groce, *Everyone Here Spoke Sign Language: Hereditary Deafness on Martha’s Vineyard* (Boston, Mass.: Harvard University Press, 1985); Harry G. Lang, *Silence of the Spheres: the Deaf Experience in the History of Silence* (Westport, Conn.: Bergin & Garvey, 1994); Horst Biesold, *Crying Hand: Eugenics and Deaf People in Nazi Germany* (Washington, D.C.: Gallaudet University Press, 1999); John V. Van Cleve (ed.), *Deaf History Unveiled: Interpretations from the New Scholarship* (Washington, D.C.: Gallaudet University Press, 1999); Leila Monaghan, Constanze Schmalzing, Karen Nakamura and Graham H. Turner (eds.), *Many Ways to be Deaf: International Variation in Deaf Communities* (Washington, D.C.: Gallaudet University Press, 2003); Hannah Joyner, *From Pity to Pride: Growing up Deaf in the Old South* (Washington, D.C.: Gallaudet University Press, 2004); Carol Padden and Tom Humphries, *Inside Deaf Culture* (Boston, Mass., Harvard University Press, 2005); John V. Van Cleve, *The Deaf History Reader* (Washington, D.C.: Gallaudet University Press, 2007); Melvia M. Nomeland and Ronald E. Nomeland, *The Deaf Community in America: History in the Making* (McFarland, 2011); Jack R. Gannon, *Deaf Heritage: A Narrative History of Deaf America* (Washington, D.C.: Gallaudet University Press, 2012).

Just as the treatment options for deafness were varied, so too, were the historical experiences of the deaf anything but uniform.¹² As Emily Cockayne asserts, “deafness” was an umbrella term that encompassed a wide spectrum of conditions, from temporal hearing loss to pre-lingual deafness to congenital deafness. She attributes any disadvantages the deaf may have experienced to their socio-economic factors (i.e. traditional divisions of wealth) rather than to degrees of hearing loss.¹³ Since the middle ages, wealthy deaf individuals certainly fared better than their poorer counterparts, many of whom were subjected to isolation, mistreatment, and suspicion. Categorized in the same class as other outcasts—beggars, wanderers, invalids—these deaf individuals were portrayed as defective bodies capable of communication only through crude gestures.¹⁴ Additionally, they were subjected to myth and superstition, equated “with madness, clairvoyance, illiteracy, savagery, and evil.”¹⁵ At the same time, the deaf were also perceived as

¹² Nor were the classifications for hearing loss. Terms like “deaf-mute,” “deaf and dumb” were commonly used until 1937 when leaders at the Conference of Executives of American Schools for the Deaf cooperated with the American Otological Society to standardize definitions and classifications of deafness. The recommendation was eventually reported to the Convention of American Instructors of the Deaf and replaced in the 1940s with a more rigid classification. See: David T. Mitchell and Sharon L. Snyder (eds), *The Body and Physical Difference: Discourses of Disability* (Ann Arbor: University of Michigan Press, 1997); Susan Burch, “Reading between the Signs: Defending Deaf Culture in Early Twentieth-Century America,” in Paul K. Longmore and Lauri Umanski (eds), *The New Disability History: American Perspectives* (New York & London: New York University Press, 2001), 214-235; 227; Susan Burch, *Signs of Resistance: American Deaf Cultural History, 1900 to World War II* (New York and London: New York University Press, 2002), 34; Martha Stoddard Holmes, *Fictions of Affliction: Physical Disability in Victorian Culture* (Ann Arbor: University of Michigan Press, 2009); David M. Turner, *Disability in Eighteenth-Century England: Imagining Physical Impairment* (New York & London: Routledge, 2012).

¹³ Emily Cockayne, “Experiences of the Deaf in Early Modern England,” *History Journal* 46 (2003): 493-510.

¹⁴ Aude de Saint-Loup, “Images of the Deaf in Medieval Western Europe,” in Renate Fischer and Harlan Lane (eds.), *Looking Back: A Reader on the History of Deaf Communities and their Sign Language* (Hamburg: Signum Press, 1993), 379-402.

¹⁵ Christopher Krentz, “Duncan Campbell and the Discourse of Deafness,” *Prose Studies* 21.1 (200): 39-53; 40-1.

“blank slates,” whereby philosophers could experiment with theories about language, speech, and the transmission of empirical knowledge.¹⁶

These “social images” of deafness, as Anne Quartararo terms it, were often dynamic, took a life of their own, and dominated the experiences of the deaf.¹⁷ By the eighteenth century, these images were also defined, if not created, by broader political and cultural attitudes, reflecting curiosities about physical and organic differences, disapproving ideas about poverty, and a strong emphasis on charitable care for marginalized populations. Since the deaf were “shut out” from communication, under this image, only education in the form of alternative language could enlighten their minds and souls. The deaf were symbolically and metaphorically constructed as the Revolutionary ideal of a “new man,” as the triumph of *l'esprit philosophique*.¹⁸ At the same time, under the guise of evangelicalism, the deaf were social tragedies, who were denied the word of God and left to the mercy and benevolence of the hearing community to rescue them from their exile. They were also curiosities, “butts and objects of contempt and their affliction a joke,” and

¹⁶ Jaap Matt, *Philosophical Languages in the Seventeenth Century: Dalgarno, Wilkins, Leibniz* (Dordrecht & Boston: Kluwer Academic Publishers, 2004); Noga Arikha, “Deafness, Ideas and the Language of Thought in the Late 1600s,” *British Journal for the History of Philosophy* 13.2 (2005); Joseph L. Subbiondo, “Educational Reform in Seventeenth-Century England and John Wilkins’ Philosophical Language,” *Language and Communication* 21(2001): 273-284.

¹⁷ Anne T. Quartararo, *Deaf Identity and Social Image in Nineteenth-Century France* (Washington, D.C.: Gallaudet University Press, 2008). Also: Brenda Jo Brueggemann, *Lend Me Your Ear: Rhetorical Constructions of Deafness* (Washington, D.C.: Gallaudet University Press, 1999) and for an overview of deaf identities, Brenda Jo Brueggemann, *Deaf Subjects: Between Identities and Place* (New York & London: New York University Press, 2009).

¹⁸ Jules Paul Seigel, “The Enlightenment and the Evolution of a Language of Signs in France and England,” *Journal of the History of Ideas* 30 (1969): 96-115. Anne T. Quartararo, “The Perils of assimilation in Modern France: The Deaf Community, Social Status, and Educational Opportunity, 1815-1870,” *Journal of Social History*, 29.1 (Autumn 1995): 5-23; Sophia Rosenfeld, “Deaf Men on Trial: Language and Deviancy in Late Eighteenth-Century France,” *Eighteenth-Century Life* 21.2 (1997): 157-175; Jonathan Réé, *I See a Voice: Deafness, Language and the Senses—A Philosophical History* (New York: Metropolitan Books, 1999). Jennifer Esmail, *Reading Victorian Deafness: Signs and Sounds in Victorian Literature and Culture* (Ohio: Ohio University Press, 2013).

even *causes célèbres* as theatrical spectacles, whose defective bodies were also morally deviant.¹⁹

As Quartararo makes explicit, this image of the deaf as “deficient” has less to do with the physiological image of deafness (i.e. ear defect) and more to do with the social limitations that hampered communication between the deaf and hearing communities.

The nineteenth century marked a turning point in the history of deafness, as anxieties over physical difference, a vigorous belief in progress, and a preference for spoken language dominated the social image of deafness. Douglas Baynton outlines that this new meaning of deafness not only changed the experiences of the deaf, but the kind of education they received, and how they were expected to participate in hearing society. Before the 1860s, deafness was commonly described as a tragic affliction that isolated the deaf from the Christian community, but after the 1860s, deafness was a phenomenon that cut off individuals from the national community.²⁰ The proposed remedies for this isolation were remarkably different, eventually creating a pedagogical divide between the “manualist” camp, which advocated education for the deaf through sign-language and encouraged a distinct identity, and the “oralist” camp, which sought to eliminate sign-language and replace it exclusively with lip-reading and speech. Baynton’s work is echoed by R.A.R. Edwards, who notes that the experience of the deaf in the nineteenth century is the story of two interrelated and interdependent narratives: the emergence of a “Deaf” community, and the story

¹⁹ Kenneth W. Hodgson, *The Deaf and their Problems: A Study in Special Education* (London: Watts & Co., 1953), 156. M.G. McLoughlin, *A History of the Education of the Deaf in England* (n.p., Liverpool, 1987); Anne Borsay and Peter Shapley (eds), “Introduction,” in *Medicine, Charity, and Mutual Aid: The Consumption of Health and Welfare in Britain, c.1550-1950* (Aldershot: Ashgate Publishers, 2007), 1; Anne Borsay, “Deaf Children and Charitable Education in Britain, 1790-1944,” in *Medicine, Charity, and Mutual Aid: The Consumption of Health and Welfare in Britain, c.1550-1950*. Eds. Anne Borsay and Peter Shapley (Aldershot: Ashgate Publishing, 2007): 71-90; 78; Christopher Stone and Bencie Woll, “Dumb O Jemmy and Others: Deaf People, Interpreters, and the London Courts in the Eighteenth and Nineteenth Centuries,” *Sign Language Studies* 8.3 (Spring 2008): 226-240

²⁰ Douglas C. Baynton, *Forbidden Signs: American Culture and the Campaign Against Sign Language* (Chicago & London: University of Chicago Press, 1996), 15.

of the war of methods about deaf education.²¹ Within this war, deafness became a “problem” to be solved and the roles of “experts” constructed accordingly to provide a solution to the problem.

Jan Branson and Don Miller place the “problem of deafness” firmly into the notion of deafness as a site for social transformation, which, in the nineteenth century, was identified with “progress.”²² In transforming the deaf from a site of philosophical and pedagogical experiments towards a site of the pathological, the deaf were constructed as “a measure of humanity’s control over its own destiny, a measure of the power of the scientific method.”²³ The deaf, to put it simply, became the mark of the triumph of medicine, as treatments of the deaf body revealing of the power and control of physicians and surgeons. Furthermore, Branson and Miller point out that that “deafness” or “disabled” is not a natural construction, but rather a cultural one rife with social, political, and intellectual discursive components and is continuously shifting referents and significance. This provides a solid foundation for reflecting on the “intellectual game,” as the authors put it, between educators and medical practitioners, who not only held differing views on how to define deafness, but also how to treat it. For instance, they argue that new diagnostic procedures in medicine were central to the development of concepts of normality, disability, and pathology; concepts that during the late nineteenth century would spearhead the Deaf movement for categorization as a minority group with a distinct language.

²¹ R.A.R. Edwards, *Words Made Flesh: Nineteenth-Century Deaf Education and the Growth of Deaf Schools* (New York: New York University Press, 2012), 1-2. The capital-D “Deaf” was coined in 1972 by the sociologist James Woodward to distinguish between deafness as an audiological affliction, and the community of individuals with hearing loss with a distinct culture grounded in the use of sign-language.

²² Jan Branson and Don Miller, *Damned for their Difference: The Cultural Construction of Deaf People as Disabled* (Washington, D.C.: Gallaudet University Press, 2002).

²³ Branson and Miller, *Damned for their Difference*, 88. Also: Sophia Rosenfeld, *A Revolution in Language: The Problem of Signs in Late Eighteenth-Century France* (Stanford, California, 2001).

The medical/social models have particularly been applied to examine the pedagogical debates on manualism and oralism, and how these debates raised questions about language and hearing.²⁴ These questions, which first began to emerge in the 1850s, reflected new cultural concerns about the disabled body in Victorian England. In assessing the role of the deaf person in society—working, socializing, raising a family—hearing educators began to rethink their pedagogical approaches to deaf students, even reconsidering the value of sign language.²⁵ The debates no longer concentrated on whether the deaf could be taught to “hear the word of God,” but whether they were capable of becoming “normal,” self-sufficient citizens—an approach, as Jennifer Esmail adds, that was rooted in Victorian rhetoric of progress.²⁶ The intense debates about the “threat” of sign language and the need to save the souls of the deaf became merged with social and moral progresses of society²⁷—the issue then, became: how could the deaf best be normalized and assimilated into society? Susan Burch has argued much of this discourse played

²⁴ R.A.R. Edwards, ““Speech Has an Extraordinary Humanizing Power”: Horace Mann and the Problem of Nineteenth-Century Deaf Education,” in Paul K. Longmore and Lauri Umansky (eds.), *The New Disability History: American Perspectives* (New York & London: New York University Press, 2001): 58-81.

²⁵ R.A.R. Edwards, *Words Made Flesh: Nineteenth-Century Deaf Education and the Growth of Deaf Culture* (New York & London: New York University Press, 2012), 161.

²⁶ Jonathan Ree, however, is careful to point out that in Britain, the campaign for the oral method had very little resistance to contend with, as opposed in France or America, because speech, lipreading, and articulation were already a part of deaf education dating back to Thomas Braidwood. Jonathan Ree, *I See a Voice: Deafness, Language, and the Senses—a Philosophical History* (Holt Paperbacks, 2000). Most schools used some form of combined method, though with some occasional contradictions. For instance, James Patterson (b.1832), teacher and nephew of Andrew Patterson, founder of the Manchester Institution for the Deaf and Dumb, wrote in his diary: “I have very much been annoyed with Cordingley [another deaf teacher at the school] this morning, he was signing to the girls & I told him not to do so & he had the impudence to tell me I did the same.” Diary of James Patterson, entry 3 November 1858. Wellcome Library Archives and Manuscripts Ms.7353.ff.16. For an overview of the history of this debate, see Harlan Lane, *When the Mind Hears: A History of the Deaf* (New York: Random House, 1984).

²⁷ Jennifer Esmail and Christopher Keep, “Victorian Disability: An Introduction,” *Victorian Review* 35.2 (2009): 45-51; Jennifer Esmail, *Reading Victorian Deafness: Signs and Sounds in Victorian Literature and Culture* (Ohio: Ohio University Press, 2013).

out in the early decades of the twentieth century, as the strength of oralists, aural surgeons, and physicians created a power network to enable the deaf to talk and “hear better.”²⁸

In 1880, the Second International Congress on the Education of the Deaf in Milan officially endorsed oralism as the most effective pedagogical strategy. While the endorsement limited the cultural connection to sign language for the deaf, the focus on speech gave aurists a broader opportunity to participate into the conversation about deaf education. As Ian Hutchison explains, “Oralism was represented as scientific advancement, and was favored by some hearing teachers.”²⁹ Instead of rejecting the efforts of aurists, educators advocating oralism unified with aurists to “normalize” deaf people by supporting medical advancements for hearing tests and devices for correcting hearing. Scholars have commonly placed the Milan Congress as the root of the medicalization of the deaf, but as this dissertation shows, the push for surgical authority on the part of early nineteenth-century aurists certainly played a prominent part in transforming social ideas of the deaf.³⁰

²⁸ Susan Burch, “Reading between the Signs: Defending Deaf Culture in Early Twentieth-Century America,” in Paul K. Longmore and Lauri Umanski (Eds.), *The New Disability History: American Perspectives* (New York & London: New York University Press, 2001), 214-235; Susan Burch, *Signs of Resistance: American Deaf Cultural History 1900 to World War II* (New York & London: New York University Press, 2002).

²⁹ Ian Hutchison, “Oralism: A Sign of the Times? The Contest for Deaf Communication in Education Provisim in Late Nineteenth-Century Scotland,” *European Review of History/Revue europeene d’histoire* 14.4 (2007): 481-501.

³⁰ Sabine Arnaud, for instance, has looked at issues of “abnormality” in the context of specialized education and legislation and France, tracing how a generation of specialists produced newer definitions of the norm of human, influencing pedagogical debates. Sabine Arnaud, “History of Education and Hierarchies of Knowledge: Aiming Towards an Ecole Normale for Teachers of the Deaf in France, 1789-1914,” presented at “Shaping Education and Distributing Areas of Knowledge in France, England, and Germany, 1750-1950,” Workshop held at the Max-Planck-Institut für Weissenhaftsgeschichte (7 June 2013).

THE “TRUE STATE OF AURAL SURGERY”

According to Jennifer Esmail, the growth of aural surgery was one of the varied ways in which British culture intervened in the issue of deafness.³¹ Having laid out a foundational layer on deaf history, I now turn to scholarship on the history of the ear. Historical treatment of aural surgery has been rather superficial and hagiographical to date, providing only a brief overview of the field, or else covering a vast period of time without contextualizing the developments made. Consequently, the discipline’s historical appraisal is composed of accounts of the progress of modern medicine over quackery. Adam Politzer’s *History of Otology* (1907), Scott R. Stevenson and Douglas Guthrie’s *A History of Oto-Laryngology* (1949), and Neil Weir’s *Otolaryngology: An Illustrated History* (1990) provides the best overview on the topic, but their analysis is composed mainly of accounts of medical triumphalism and anachronistic progression.³² The contributions of many early nineteenth-century aurists have been described only in that they provided an opposition for rebuilding the field as “medical science,” and are essentially discussed only in history of otology journals.³³ Few scholars have subjected the works of early aurists to analytical study, which is why this dissertation provides a comprehensive bibliographical narrative of some of the most prominent aurists of the nineteenth century, including: William Wright (1773-1860),

³¹ Esmail, *Reading Victorian Deafness*, 166.

³² Adam Politzer, *History of Otology* (1907), translated by Stanley Milstein, Collice Portnoff and Antje Coleman (Phoenix, Arizona: Columella Press, 1981); Scott R. Stevenson and Douglas Guthrie, *A History of Oto-Laryngology* (Edinburgh: E&S Livingstone, Ltd., 1949); Neil Weir, *Otolaryngology: An Illustrated History* (London: Botterworths & Co., 1990).

³³ Macleod Yearsley, “The Foundations of British Otology,” *The Journal of Laryngology, Rhinology, and Otology* 28 (August 1913): 396-401; Marianne Barbanski, *Highlights in the History of Otology through the Nineteenth Century*, (Gallaudet University, 1966); Douglas Guthrie, “The Renaissance of Otology: Joseph Toynbee and his Contemporaries,” *The Journal of Larynotology and Otology* 52 (March 1937): 163-176; A.L. Pahor, “An Early History of Secretory Otis Media,” *The Journal of Laryngology and Otology* 92 (1978): 543-560.

John Harrison Curtis (1778-1856), James Yearsley (1805-1869), and Joseph Toynbee (1815-1866).³⁴

There has been some literature on the history of aural surgery outside of disciplinary journals, where scholars have briefly covered prominent figures or quickly glanced at the field as a subset of late nineteenth century specialization. Roy Porter discusses ear surgery within his overview of speciality medicine, making note that “ear troubles” have “long been treated by itinerants” and the French monographs on ear diseases had set the foundations of the specialty.³⁵

Mary Wilson Carpenter’s recent publication, *Health, Medicine, and Society in Victorian Britain* (2010) discusses the history of aural surgery—or what she calls “aurism”—within a “reasonably short and comprehensive narrative” cultural and literary history of Victorian medicine. Even though Carpenter raises a pivotal question, “The rise of aurism: surgical specialty or quackery?” it is disappointing in that she does not expand on her answer, placing the topic briefly on a chapter on deafness. Nor does she add anything new to the history of otology: Wright and Curtis’ medical training are questionable, their careers implied as “quackery,” and Wilde and Toynbee “credited with conferring clinical and scientific respectability to the new field of otology.”³⁶

None of these works, however, speak to the complicated and conflicted identity of aural surgery, an aspect of which was rooted in the term used to refer to its practitioners. “Aurist” was a nineteenth century panoramic term used to describe practitioners who provided treatment for

³⁴ N.A. Bergman, for instance, limits his discussion on William Wright’s career as an aurist. N.A. Bergman, “William Wright, aurist: Nineteenth Century Pneumatic Practitioner and a Discoverer of Anesthesia,” *Annals of Otology, Rhinology and Laryngology* 103.6 (June 1994): 483-486.

³⁵ Roy Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity* (New York & London: W.W. Norton & Company, 1997), 384-5. See also: Albert Murdy, “The Making of a Career: Joseph Toynbee’s First Steps in Otology,” *The Journal of Laryngology & Otology* 126 (2012): 2-7.

³⁶ Mary Wilson Carpenter, *Health, Medicine, and Society in Victorian Britain* (Santa Barbara, CA: ABC-CLIO, 2010), 116.

aural diseases.³⁷ It was a term of abuse used against proprietors such as “Dr. Taylor’s Celebrated Remedy,”³⁸ “Dr. Dunbar’s Botanical snuff,”³⁹ or “Collin’s Cordial Cephalic Snuff,”⁴⁰ who boasted their potions could cure incurable deafness. It condemned the nefarious itinerant who advertised with a “cloak for fallacious promises, sheer quackery, and mere purse-milking,” as *The Gentleman’s Magazine* reported in 1828, or the “bad, dangerous, and ignorant practitioner,” as the *London Medical and Surgical Journal* reported in 1835.⁴¹ At the same time, “aurist” also referred to a distinctive surgical identity: the specialist aural surgeon whose knowledge of the physiology and pathology of the ear enabled him to develop newer techniques for diagnosis and treatment.

These practitioners were men—and they were, indeed, mostly men—who crafted their surgical authority by publishing widely on the anatomy, physiology, and diseases of the ear, identifying themselves as “aurist,” “aural-surgeon,” or “surgeon-aurist.” To refer oneself as “aural surgeon” was also to construct (in)visible ties to the tripartite hierarchy of elite medicine, composed of physicians, surgeons, and apothecaries aligned in degrees of authority, while at the same time, distinguishing the specialist. Yet, much to the historian’s confusion, these practitioners also used the terms interchangeably. For instance, speaking to students gathered at St. Bartholomew’s Hospital for a lecture on operative surgery in 1827, surgeon John Abernethy (1764-1831) declared:

Now, then, I may say, with respect to operations about the ear, that syringing the ear is necessary, if there is wax in it. If there be wax in it, it may be got out by syringing, but depend upon it you will never syringe it successfully with an elastic bottle—it must be done with a brass syringe. Quacks and Aurists get reputation for this when surgeons lose it,

³⁷ The earliest reference to “aurist” I found dates to 1775, in an advert published in *Reading Mercury* (8 May 1775), British Newspapers Archives Online.

³⁸ *The Morning Chronicle*, Tuesday August 25, 1807.

³⁹ *The Morning Chronicle*, Thursday August 19, 1802.

⁴⁰ *The Morning Chronicle*, Saturday July 26, 1823.

⁴¹ *London Medical and Surgical Journal* vol.7 (1835), 342.

not because the quack has more knowledge of his profession, but because he takes more pains than the surgeon⁴².

It's unclear whether Abernethy was using "quack" and "aurist" interchangeably, or whether he was referring to the same group or two different ones. He does, however, suggest a distinction between "Quacks and Aurists" and (hospital) surgeons: the former an innovative and perhaps reckless group, while the latter methodical and careful. But paradoxically, Abernethy also implied the surgeon could learn the technique of syringing from the "Quacks and Aurists," albeit with superior instruments.⁴³

Remarking on Abernethy's comments, William Wright wrote:

Although Abernethy was very adverse to the division of surgery into different departments, yet he was honourable enough to confess to his pupils that surgeons did not even know how to syringe the ear. And Abernethy was right; for I never saw any common surgeon who possessed the necessary delicacy of touch which characterises an aurist with experience.⁴⁴

For clarity's sake, I use the term "aurist" throughout this dissertation to identify all practitioners who offered treatments for ear diseases, using the moniker "quack aurist" when they were exposed as such. Aurists were the men who reflected upon the works of their continental colleagues, who built institutions, who were appointed positions in royal courts, and who were recognized by their colleagues for their specialized knowledge. They developed improved tools for diagnosis, experimented with surgical techniques, and rallied for communal identity, even though at times they placed their self-interest above the interests of the group by hurling "quack" as an idiom of abuse and as a result, undermined their own authority as specialists to the public eye.

⁴² Transcript printed in *The Lancet* 8.202 (14 July 1827): 449-454; 449. Also: John Abernethy, *Lectures on Anatomy, Surgery, and Pathology: including observations on the nature and treatment of local diseases, delivered at St. Bartholomew's Hospital* vol.II (Boston: Benjamin Perkins & Co., 1828), 344.

⁴³ Ibid.

⁴⁴ William Wright, *Observations and Facts Relative to those Born Deaf and Consequently Dumb* (London: William Strange, 1843), 3.

Finally, these were also the men who scorned the “nefarious practices” of exposed quack aurists—such as the duo Home & Co.—declaring they were a danger to both the public and to the field of aural surgery. Public accusations of dishonesty brought about by intra-professional strife, or exposures of quackery undermined the surgical authority of the field. Wright, for instance, scorned such “nefarious evils,” cautioning that such “illiberal and unjusted [sic] opinions” confused the “TRUE state of AURAL SURGERY IN ENGLAND,” threatened the national reputation of its “credible” practitioners, and barred prominent medical and surgical practitioners from considering aural surgery as a speciality.⁴⁵ “I should rejoice,” Wright continued, “if aural surgery, instead of being disgraced by *interested charlatanism* and *ignorant pretenders*, were cultivated by a society of scientific individuals”⁴⁶

John Harrison Curtis was especially outspoken against the “popular prejudice,” arguing that it led “medical men” to neglect aural surgery as a “respectable field,” in consequence of which the treatment of aural diseases “has, for the most part, fallen into the hands of empirics.”⁴⁷ This neglect, Curtis explained, was unavoidable in a society where demand for all sorts of healing was combined with a literate public eager to exercise its consumerist powers. Medical practitioners were forcibly aware of the success that entrepreneurialism offered and aural surgery was no exception to the overwhelming influences of entrepreneurialism. Since the field was “neglected,” or at the very least, underrepresented within the citadels of medicine, it became attractive for the proliferation of “quack aurists” seeking out opportunities to fill in occupational and public niches. These itinerant practitioners became dangerous rivals for aurists who were encouraging the

⁴⁵ William Wright, *A Few Minutes' Advice to Deaf Persons* (London: James S. Hudson, 1839), vii.

⁴⁶ Wright, *A Few Minutes' Advice*, xiv.

⁴⁷ John Harrison Curtis, *A Treatise on the Physiology and Diseases of the Ear*, 6th edition (London: Sherwood, Neely & Jones, 1836), 13.

ripening buds of their speciality to grow, especially for aurists who held prominent positions within aristocratic households. Calls for a specialized identity could restore the authority of aurists, for the strength of a collective agreement could disparage the “quack aurist.” Curtis declared that just as dentists and oculists have become a branch of medicine with a respectable body of practitioners and provided great service to the public, so too, must aural surgery advance and make itself “a separate study...in order to render practitioners equally conversant in the treatment of the diseases of this intricate organ, as in other parts of the body.” Yet, the very process of distinguishing the competent aurist from the incompetent “quack aurist” was complicated by intra-professional rivalries between aurists, as nearly all aurists threw the word “quack” as an accusation in their own quest for respectability. As self-interest brought out communal identity, the word “quack” was thrown around so frequently that the *London Literary Gazette* remarked, “[w]ho should decide when aurists disagree? We shall not try, for we are so sick of the quackery practiced, almost beyond all branches, in this branch of surgical practice, that we must turn a deaf ear to them all.”⁴⁸ Within this nascent aural culture that was filled with animosity and intra-professional strife, issues of authority, identity, and social reputation were inextricably intertwined, creating a sense of dissension and frustration among practitioners, making it difficult to build a foundation for specialization.⁴⁹

Curtis’ views are perhaps an honest assessment of nineteenth-century British aural surgery. Surgical procedures were treacherous and difficult to execute in many cases due to the intricate nature of the ear and its parts. Since treatments for the ear were limited—patients were

⁴⁸ *The London Literary Gazette; and Journal of Belles Letters, Arts, Sciences, &c.*, vol.934 (Dec. 1834), 832.

⁴⁹ Michael Brown, “Rethinking Early Nineteenth Century Asylum Reform,” *The Historical Journal* 49.2 (2006), 430; Irvine Loudon, “Medical Practitioners 1750-1850 and the Period of Medical Reform in Britain,” in *Medicine and Society*, ed. Andrew Wear (Cambridge: Cambridge University Press, 1992): 219-248; 221.

usually advised a remedy of syringing, nostrums, drops, or emetics—any surgical procedure that proved to be effective in a few cases were soon applied to all cases, regardless of necessity of outcome, stalling any “progress” or improvement that might apply for better understanding the physiology and diseases of the ear. As Christopher Lawrence suggests, a practitioner who successfully performed a complicated surgical technique contributed to the broader repertoire of surgeons practicing a “profession based on learning,” while abandoning both the language and image of butchery.⁵⁰ The aural surgeon held the resolve to operate and exhibit certain skills that was not required of the physician, thus allowing an approach for him to assert his self-identity and surgical authority while undercutting the overwhelming presence of the quack aurist.

Elite surgeons, like Sir Astley Cooper (1768-1841) explored aural surgery as a prominent career option during the early nineteenth century, but played no role in the formation of the aurist’s surgical identity. Cooper developed the procedure for tympanic membrane perforation, but he refused to publicly acknowledge his connotations with aural surgery lest he “be thought an aurist” and ridiculed.⁵¹ Others, like Cooper’s pupil John Cunningham Saunders (1773-1810), whose *The Anatomy of the Human Ear* (1804) was applauded for being the first English work providing proper merits to the anatomy of the ear, left aural surgery out of frustration over the limitations of curing aural diseases.⁵² Cooper and Saunders are part of a long line of anatomists who sought to unlock the process of hearing and language by studying the ear as part of the

⁵⁰ Christopher Lawrence, “Medical Minds, Surgical Bodies: Corporeality and the Doctors,” in *Science Incarnate: Historical Embodiments of Natural Knowledge*, eds. Christopher Lawrence and Steven Shapin (Chicago & London: University of Chicago Press, 1998), 183, 188, 194.

⁵¹ James Yearsley, *Deafness Practically Illustrated as to its nature, causes and treatment*, 5th ed. (London: John Churchill, New Burlington Street, 1857), 234.

⁵² J.R. Farre, *A Treatise on Some Practical Points Relating to the Diseases of the Eye by the late John Cunningham Saunders [and]...A Short Account of the Author’s Life* (London: Printed for Longman, Hurst, Rees, Orme, and Brown, 1811), xi.

broader repertoire of their anatomical findings. J.G. Duverney (1648-1730), Professor of Anatomy at Paris, published one of the earliest monographs covering the structure, function and diseases of the ear—*Traite de l'organe de l'ouie* (1683)—and provided an explanation of the ear's anatomy, physiology, pathology, ear discharge, deafness, and tinnitus, but largely relied on plant juices for treatment.⁵³ The works of Bartomeleo Eustachius (1510/20-1574), Antonio Valsalva (1665-1723), and Antonio Scarpa (1747-1823), made the anatomy of the ear familiar to many nineteenth-century medical practitioners. Treatments for aural diseases, on the other hand, were different. Dry medications, as advised by Ambroise Paré (1510-1590) as well as a compilation of regular pharmacia, remained the standard for treatments. While French surgeons, particularly Jean-Marc Gaspard Itard (1775-1838), Antoine Saissy (1756-1822) and Nicolas Deleau (1797-1862) experimented with more invasive surgical procedures, British aural surgery received meagre attention from medical practitioners. To some aurists, like Curtis, this meant that many cases were not only misdiagnosed or mistreated, but it encouraged the proliferation of quack aurists who jumped at the opportunity to fulfill a niche in medical and surgical treatments.⁵⁴

The aural surgeons who rallied for their surgical identity and authority were largely responding to the “neglect” in their field by the broader medical community, a neglect which they explained actually brought attractive economic options for the quack aurist. Identifying the aurist from the “quack aurist” at times is no easy task. Some aurists provided a clear explanation of the aurist’s identity to distinguish him from the quack, as William Wilde (1815-1876), father of the writer Oscar Wilde (1854-1900), wrote in 1853:

⁵³ Douglas Guthrie, “The History of Otology,” *The Journal of Laryngology & Otology* 55.11 (Nov.1940): 473-494.

⁵⁴ John Harrison Curtis, *A Treatise on the Physiology and Diseases of the Ear*, 4th ed. (London: Thomas & George Underwood, 1826), xxvi.

What is the legitimate aural practitioner in the present day, and how far does his art extend over disease? A practitioner in aural surgery, or, if it pleases the public to call him, an Aurist, in our day must, or at least he ought to be, a well-educated surgeon or physician, who applies the recognised principles of medicine and surgery to diseases of the organ of hearing, in the same manner as the modern ophthalmic surgeon does to diseases of the eye...Now notwithstanding the injudicious treatment by quacks and nostrum-mongers, the neglect of patients, and—as in many instances we know it is—the total abandonment of all treatment by the general practitioners, still, were the statistics of all diseases carefully collected, it would be found that there were among them as many curable cases of affections of the ear.⁵⁵

But Wilde also disparages the earlier work of Wright, Curtis, and Yearsley, classifying them amongst the most notorious quack aurists. This raises a significant question: what really separates medical pioneers from quacks? Moreover, when do practices cease to become “orthodox” and become “quack?” Wright, Curtis, and Yearsley were prolific in pressuring the medical community to recognize aural surgery as a valuable surgical speciality, publishing treatises, earning prominent positions, and establishing successful institutions. Many historical accounts of otology—the twentieth-century term for aural surgery—have emphasized the works of Wilde and Toynbee during the 1850s and 1860s as the starting point of the speciality, dismissing the works of earlier aurists as the works of “quacks.” David Guthrie, for instance, names Saunders, Thomas Buchanan (1782-1853), and the “notorious Curtis” as early pioneers, but credits Wilde and Toynbee and their “scientific-based medicine” for establishing the discipline.⁵⁶ While many aurists hardly fit the mould of traditional, gentlemanly, and elite physicians, many could be classified

⁵⁵ William Wilde, *Practical Observations on Aural Surgery* (London: John Churchill, 1853), 50.

⁵⁶ Guthrie, “The History of Otology,” 473.

under Heather Beatty's "second tier" practitioners, the social climbers and social reformers, and those who challenged the claims of the "third-tiered" sellers of patent medicine.⁵⁷

SELF-FASHIONING IDENTITIES IN THE MARKETPLACE

Although scholarship on the history of aural surgery has been rife with triumphalism, this dissertation asserts that a study of the field offers valuable perspectives for evaluating historiographical problems in the social history of medicine. By focusing on how the self-imposed surgical identities of aurists shifted and transformed in response to broader cultural perspectives of deafness as well as the wider professional resistance towards specialization, the story of these aurists fit well within broader trends in historical scholarship of late eighteenth and nineteenth-century medical culture, especially: the role of the "medical marketplace" as a way for assessing the network of aurists, "quack aurist," and patients; and the construction of identity and speciality within an occupational group seeking to define their surgical authority.

The "medical marketplace" model emerged in the 1980s as a way to analyze the experiences of health and illness by framing a normative understanding of how the buying and selling of medicine and medical goods were an outcome of the eighteenth century birth of a consumer society.⁵⁸ Using the language of economics, scholars evaluated how economic constraints and financial competition juxtaposed the rise of prosperity of medical practitioners

⁵⁷ Heather R. Beatty, *Nervous Diseases in Late Eighteenth Century Britain: The Reality of a Fashionable Disorder* (London: Pickering & Chatto, 2012).

⁵⁸ Neil McKendrick, J. Brewer, and J.H. Plumb (eds.), *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (Ithaca & London: Cornell University Press, 1986).

and a rapidly expanding medical economy within the dynamics of an unrestricted free market.⁵⁹

As Irvine Loudon argues, practitioners “motivated by a hard sense of commercialism” paved the way for “an extraordinarily favourable market to be exploited,” as commercial opportunity outlined the roles a practitioner was able to perform. This was particularly the case in rural areas where without economic competition, a practitioner was forced to practice all branches of medicine, blurring traditional divisions between the physician, surgeon, and apothecary roles.⁶⁰ Under this model, the expertise of the “learned” and “orthodox” physician was only one of several therapeutic options available to patients. A multitude of healers, ranging from empirics, conmen, bonesetters, and tooth-pullers—the “irregulars” or “unorthodox”—all adopted the *caveat emptor*

⁵⁹ John Brewer and Roy Porter (eds), *Consumption and the World of Goods* (London: Routledge, 1993); Richard Grassby, *The Business Community of Seventeenth Century England* (Cambridge: Cambridge University Press, 1995); Lorna Weatherill, *Consumer Behaviour and Material Culture in Britain, 1660-1760* (London: Routledge, 1996); Paula Findlen and Pamela H. Smith (eds), *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe* (New York & London: Routledge, 2002); Maxine Berg and Elizabeth Eger (eds), *Luxury in the Eighteenth Century: Debates, Desires and Delectable Goods* (Basingstoke: Palgrave Macmillian, 2003); Roy Church and E.M. Tansey, *Burroughs Wellcome & Co.: Knowledge, Trust and Profit, and the Transformation of the British Pharmaceutical Industry, 1880-1940* (Lancester: Crucible, 2007); Harold J. Cook, *Matters of Exchange: Commerce, Medicine, and Science in the Dutch Golden Age* (New Haven: Yale University Press, 2007); Patrick Wallis, “Consumption, Retailing, and Medicine in Early Modern London,” *Economic History Review*, 61.1 (2008): 26-53; Pratik Chakrabarti, *Materials and Medicine: Trade, Conquest and Therapeutics in the Eighteenth Century* (Manchester: Manchester university Press, 2011); Alun Withey, “Persons that live remote from London:” Apothecaries and the Medical Marketplace in Seventeenth and Eighteenth-Century Wales,” *Bulletin of the History of Medicine* 85.2 (Summer 2011): 222-247; Jacqueline Jenkinson, “A ‘Crutch to Assist in Gaining a Honest Living’: Dispensary Shopkeepers by Scottish General Practitioners and the Responses of the British Medical Elite, ca.1852-1911,” *Bulleting of the History of Medicine* 86.1 (2012):1-36; Frank Trentmann, *The Oxford Handbook of the History of Consumption* (Oxford: Oxford University Press, 2012), especially Sara Pennell’s chapter on how individuals and communities engaged with the making and maintaining of their material existences (“Material Culture in Seventeenth Century ‘Britain’: The Matter of Domestic Consumption,” 64-84).

⁶⁰ Irvine Loudon, “The Nature of Provincial Medical Practice in Eighteenth-Century England,” *Medical History* 29 (1985): 1-31.

maxim characteristic of Georgian England's marketplace.⁶¹ Historians have largely dismissed "quacks" as an absolute term, insisting that it needs to be subjected to historical investigation to avoid anachronism. "Irregulars," quacks and "orthodox" practitioners alike exploited the opportunities of the marketplace by managing, advertising, and selling remedies to a consuming public, even forming complex interconnections in society, economics, and politics.⁶²

One of the discursive benefits of the medical marketplace model is that it provides a powerful framework for analyzing the relationships between practitioners and patients, offering a way to examine the success and failure of particular practitioners and/or medical theories, technologies, or treatments. By 1800, London was the largest city in the world with visible signs of consumption patterns, including expansion of shopping, selling of a wide variety of goods—particularly medical services—and new forms of retailing stimulated by improving living

⁶¹ *Caveat emptor*: "let the buyer beware." Roy Porter, *Disease, Medicine and Society in England, 1550-1860* (London: MacMillan Publishers, 1987), 44.

⁶² Matthew Ramsey, "Medical Power and Popular Medicine: Illegal Healers in Nineteenth-Century France," *Journal of Social History* 10.4 (1977): 560-587; Harold J. Cook, *The Decline of the Old Medical Regime in Stuart London* (Ithaca & London: Cornell University Press, 1986); Alison Lingo, "Empirics and Charlatans in Early Modern France: The Genesis of the Classification of the "other" in Medical Practice," *Journal of Social History* 19 (1986): 583-603; William Bynum and Roy Porter, *Medical Fringe and Medical Orthodoxy: 1750-1850* (London: Croom Helm, 1987); Codell K. Carter, "The Concept of Quackery in Early Nineteenth Century British Medical Periodicals," *The Journal of Medical Humanities* 14.2 (1993): 89-98; Mike Saks, "From Quackery to Complementary Medicine: The Shifting Boundaries between Orthodox and Unorthodox Medical Knowledge," in *Complementary and Alternative Medicines: Knowledge in Practice*, eds., Saran Cant and Ursula Sharma (London & New York: Free Association Books, 1996): 27-43; Colin Jones, "Pulling Teeth in Eighteenth-Century Paris," *Past and Present* 166 (Feb., 2000): 100-145; Roy Porter, *Quacks: Fakers and Charlatans in English Medicine* (London: Stroud Tempus, 2001); M.A. Katritzky, "Marketing Medicine: The Image of the Early Modern Mountebank," *Renaissance Studies* 15.2 (2001): 121-153; Margaret Pelling, *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003); David Haycock and Patrick Wallis, *Quackery and Commerce in Seventeenth-Century London: The Proprietary Medicine Business of Anthony Dafty* (London: Wellcome Trust Center for the History of Medicine, 2005); David Gentilcore, *Medical Charlatanism in Early Modern Italy* (Oxford: Oxford University Press, 2006); Evert Peeters, "Questioning the Medical Fringe: The "Cultural Doxy" of Catholic Hydropathy in Belgium, 1890-1914," *Bulletin of the History of Medicine* 84.1 (2010): 92-119.

standards.⁶³ The pluralistic nature of the marketplace has offered historians different perspectives for revealing traditionally overlooked cultural categories (e.g. magic, disability, gender) of health as well as the extent to which “medically promiscuous” patients shuttled between various practitioners in search for cure or care.⁶⁴ As the sick found access to all sorts of medical practitioners and did not discriminate between those practicing on so-called “Quack Streets,” the blurred boundary lines between practitioners meant “orthodox” physicians did not command any “real degree of cultural authority until the nineteenth century.”⁶⁵ This perspective has characterized the eighteenth century as the “golden age of quackery,” a period in which packaging, branding, and advertisements perfected charlatanism. This was also a period characterized by “fluidity and plurality of knowledge and practice” within a medical culture of competitive individualism.⁶⁶ The nineteenth century continued the entrepreneurial tradition, but the period was also shaped by legislations for regulating medicine and an ideology of reform and progress,

⁶³ Michael Ball and David Sunderland, *An Economic History of London, 1800-1914* (London & New York: Routledge, 2001), 127.

⁶⁴ Katherine Park, *Doctors and Medicine in Early Renaissance Florence* (Princeton, N.J.: Princeton University Press, 1985); Gianna Pomata, *Contracting a Cure: Patients, Healers, and the Law in Early Modern Bologna* (Baltimore & London: John Hopkins University Press, 1994); David Gentilcore, *Healers and Healing in Early Modern Italy* (Manchester: Manchester University Press, 1998); Katherine Park, “Magic and Medicine: the Healing Arts,” in Judith C. Browne and Robert C. Davis (eds), *Gender and Society in Renaissance Italy* (London: Addison Wesley Longman, 1998); Elaine Leong, “Making Medicines in the Early Modern Household,” *Bulletin of the History of Medicine* 82 (2008): 145-168; Hilary Marland and Jane Adams, “Hydropathy at Home: The Water Cure and Domestic Healing in Mid-Nineteenth Century Britain,” *Bulletin of the History of Medicine* 83 (2009): 499-529. Elaine Leong and Alisha Rankin (eds), *Secrets and Knowledge in Medicine and Science, 1500-1800* (Ashgate, 2011).

⁶⁵ Lawrence W.B. Brockliss and Colin Jones, *The Medical World of Early Modern France* (Clarendon Press, 1997).

⁶⁶ Roy Porter (ed), *Medicine in the Enlightenment* (Amsterdam, 1995); David Gentilcore, “The ‘Golden Age of Quackery’ or ‘Medical Enlightenment’? Licensed Charlatanism in Eighteenth-Century Italy,” *Cultural and Social History* 3 (2006): 250-263; Michael Brown, “Medicine, Quackery, and the Free Market: The ‘War’ against Morison’s Pills and the Construction of the Medical Profession, c.1830-c.1850,” in Mark S.R. Jenner and Patrick Wallis (eds), *Medicine and the Market in England and its Colonies, c.1450-1850* (New York: Palgrave MacMillian, 2007), 238-261.

transforming the medical culture, bringing forth “a hardening of boundaries and the elaboration of more antagonistic cultures.”⁶⁷ This rigid divide is an oversimplification, of course, for as Roy Porter has pointed out, the history of medicine is full of paradoxes. David Gentilcore’s studies in charlatanism in Italy, for instance, demonstrate that while charlatans increased in numerical abundance, medical elites also tightened their control over the practice of medicine.⁶⁸ His analysis suggests that a shift in attitudes by medical elites and increasing policy regulations may have made charlatanism a less attractive career option, but it did not mean that they disappeared with legislation. Rather, he asserts patients played as much of a role in constructing medical pluralism as official bodies and economic concerns did, as they were driven towards healers as much as by their cultural allegiances to a particular set of healers within their communities.

The relationship between patients and practitioners is fundamental for analyzing how particular entrepreneurial medical trends may have emerged within a medical marketplace. Moreover, it creates a forum for discussing how certain practitioners offered particular types of cure or care to attract patients on the basis of popular demand.⁶⁹ Anne Digby, for instance, argues that doctors’ entrepreneurial activities and their working lives helped to shape English medicine into a distinctive pattern of general and specialist practice, emphasizing that all sorts of doctors showed marked commercial flair and versatility in their attempts to expand the medical market as

⁶⁷ Brown, “Medicine, Quackery, and the Free Market,” 239.

⁶⁸ David Gentilcore, *Medical Charlatanism in Early Modern Italy* (Oxford: Oxford University Press, 2006).

⁶⁹ Stephen Jaycana, “Medicine in Transformation: 1800-1949,” in *The Western Medical Tradition: 1800-2000* (Cambridge: Cambridge University Press, 2006); Margaret Pelling, *The Common Lot: Sickness, Medical Occupations and the Urban Poor in Early Modern England* (London: Longman Books, 1998); Christopher Lawrence, *Medicine and the Making of Modern Britain: 1700-1920* (London & New York: Routledge, 1994); Roy Porter and Dorothy Porter, *Patient’s Progress: Doctors and Doctoring in Eighteenth Century England* (California: Stanford University Press, 1989); Christelle Rabier (ed.) “The Crafting of Medicine: Introduction to the “Fitting for Health” Special Issue,” *Technology and Culture* 54.3 (July 2013).

dictated by consumerism and “fashions.”⁷⁰ From her analysis, patient choice and the growth of a consumer society that viewed health as a commodity provided a dynamic for sustaining and encouraging vigorous commercialism, since doctors had to make a living. This not only allowed for charlatans and quacks to flourish by advertising and selling secret remedies to undercut their competition, but also encouraged professionalization as a drive towards a particular ideal or self-image that practitioners desired to construct for themselves.⁷¹ Fashion, as Nicolas Jewson explains, was driven more by the patronage system than by consumerism.⁷² Since elite practitioners were dependent upon the fees and favours of their aristocratic patients, much of their self-image reflected the “assumptions, obsessions, and interests of the most powerful section of the lay public,” allowing them to adopt the stereotyped lifestyle of the genteel. Medical services were attractive under the rubric of fashion; and practitioners expanded their services by advertising and individual display. This “peculiar amalgam of social conformity and personal eccentricity” also meant social aspirations, economic constraints, and financial competition all marked the identity of a medical practitioner.⁷³

However, Michael Brown raises an important point that while making a living was central to the social aspirations of practitioners, it was by no means the determining factor of their social position as gentlemen; financial wealth did not necessitate social approbation.⁷⁴ While practitioners placed a great deal of effort in creating an acceptable social identity, they were still

⁷⁰ Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge: Cambridge University Press, 1994).

⁷¹ Digby, *Making a Medical Living*, 63.

⁷² Nicolas Jewson, “Medical Knowledge and the Patronage System,” *Sociology* 8.3 (1994): 369-385. Also: Margaret Pelling, *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003).

⁷³ Jewson, “Medical Knowledge and the Patronage System.”

⁷⁴ Michael Brown, *Performing Medicine: Medical Culture and Identity in Provincial England, c.1760-1850* (Manchester: Manchester University Press, 2012).

subjected to the opinions and control of the lay and local populations, relating back to Margaret Pelling's point that medicine was an occupation, not a vocation. To establish a career, all practitioners advertised their expertise: various marketing strategies, including print, packaging, patronage, and even new(er) technologies constituted techniques were used by practitioners to popularize their medical discourse to the public, embark on a quest for authority, as well as attract the consumer.⁷⁵ While the medical marketplace model has provided a conceptual framework for thinking about the pluralistic nature of medical marketplace and the economic factors governing it, some historians have expressed reservations, arguing that the model is unable to address significant aspects of medical practices and that cultural forces need to be placed alongside economic imperatives.⁷⁶ Mark Jenner and Patrick Wallis' publication has acknowledged that despite the fact the terminology of "market" has been employed in various historical analyses, its meaning has become "vague to the point of confusion."⁷⁷ They question whether the term is outdated or in due of a revision as Pelling has insisted, or whether historians should shift their thinking from an abstract and generalized concept of "medical marketplace" towards a more

⁷⁵ Harold J. Cook, "Good Advice and Little Medicine; The Professional Authority of Early Modern English Physicians," *The Journal of British Studies* 33 (Jan. 1994): 1-31; Steven Shapin, "Trusting George Cheyne: Scientific Expertise, Common Sense, and Moral Authority in Early Eighteenth-Century Dietetic Medicine," *Bulletin of the History of Medicine* 77.2 (2003): 263-297; Anne Fyfe and Bernard Lightman, "Science in the Marketplace: An Introduction," in *Science and the Marketplace; Nineteenth Century Sites and Experiences* (Chicago & London: The University of Chicago Press, 2007), 1-19; Mary E. Fissell, "The Marketplace of Print," in Mark Jenner and Patrick Wallis (eds), *Medicine and the Marketplace in Early Modern England* (New York: Palgrave MacMillian, 2007), 108-132; Colin Jones, "The Great Chain of Buying: Medical Advertisement, the Bourgeois Public Sphere, and the Origins of the French Revolution," *The American Historical Review* 101 (Feb. 1996): 13-40.

⁷⁶ Mark S.R. Jenner and Patrick Wallis, *Medicine and the Market in England and its Colonies, c.1450-1850* (New York: Palgrave MacMillian, 2007), 4-5; David Harley, "Bred up in the Study of That Faculty:" Licensed Physician in the North-West England, 1660-1760," *Medical History* 38 (1994): 398-420; Mark Jenner "Quackery and Enthusiasm, or Why Drinking Water Cured the Plague," in O.P. Grell & Andrew Cunningham (eds), *Religio Medici* (Aldershot, 1996), 313-339.

⁷⁷ Jenner and Wallis, *Medicine and the Market*.

focused concept of medical goods and services. For instance, the model does not account for cooperation, or for specialization as a rhetorical strategy, or even ideological campaigns such as the anti-quackery reform movement of the 1830s that sought to radically restructure the commercial state of medicine.⁷⁸

In addition to revealing attitudes about shifts in entrepreneurial categories and self-fashioning identities, aural surgery's association with quackery and struggle over establishing surgical authority tells us about the early history of the profession and how professions could be understood as historical objects. Anne Crowther and Marguerite Dupree have discussed the paradoxical nature of competitive entrepreneurs who also shared remarkably strong communal loyalties, narrating how various cultural and professional factors maintained a particular surgical identity for practitioners in the face of changing medical knowledge.⁷⁹ Likewise, Luke Davidson has argued that relevant "cultural activities" significantly contributed to the making of a specialty.⁸⁰ In Davidson's account of British ophthalmology during the early nineteenth century, such activities include the military and political dimensions of eye disease, the construction of medical identity and authority of ophthalmologists, the rhetorical use of language, and the significance of the eye in English culture. Narrating a rich account of the complexities surrounding the specialization of eye surgery, he balances the interplay of social, political, and medical perceptions towards eye disease, counteracting traditional historiographies of ophthalmology, which have been largely left to internalist narratives. Davidson's account of "cultural activities"

⁷⁸ Brown, "Medicine, Quackery, and the Free Market."

⁷⁹ M. Anne Crowther and Marguerite W. Dupree, *Medical Lives in the Age of Surgical Revolution* (Cambridge: Cambridge University Press, 2007).

⁸⁰ Luke Davison, "'Identities Ascertained': British Ophthalmology in the First Half of the Nineteenth Century," *Social History of Medicine* 9 (December 1996), 313-333. Also: Savithri Preetha Nair, "Disease of the Eye: Medical Pluralism at the Tanjore Court in the Early Nineteenth Century," *Social History of Medicine* 25.3 (2012): 573-588.

can clearly also explain the rise of aural surgery in nineteenth-century Britain, but it does not adequately capture the factors contributing to aural surgery's intra-professional competition, particularly at the level of aristocratic patronage.

The history of aural surgery as a making of a specialty certainly finds a home in literature on fragmentation, individual competition, and intra-professional rivalries, offering an explanation for the way medical identity/identities intersect with cultural values and claims to knowledge.⁸¹ As Roger Cooter has shown, not all surgeons consciously devoted themselves exclusively to a speciality.⁸² While there was a broader medical and cultural hostility against specialization during the late eighteenth century—specialization was counterproductive to the dominant Hippocratic-Galen holistic model of medical practice—and even branded as an aspect of quackery, it was also used as a rhetorical strategy to showcase a practitioner's precise focus over a particular body part or disease.⁸³ The studies on professionalization during the 1970s, largely undertaken by sociologists, frame the concept of specialization as a rhetorical and interpretive device, allowing historians to view how different professions formed networks, adapted to changing

⁸¹ Susan Lawrence, *Hospital Pupils and Practitioners in Eighteenth Century London* (Cambridge: Cambridge University Press, 2002), 18. Geoffrey Stuart Taylor and Malcolm Nicolson, "The Emergence of Orthodontics and a Specialty in Britain: The Role of the British Society for the Study of Orthodontics," *Medical History* 51 (2007): 379-398; Vanessa Heggie, "Specialization without the Hospital: The Case of British Sports Medicine," *Medical History* 54 (2010): 457-474; Delia Gavrus, "Men of Dreams and Men of Action: Neurologists, Neurosurgeons, and the Performance of Professional Identity, 1920-1950," *Bulletin of the History of Medicine* 85.1 (2011): 57-92.

⁸² Roger Cooter, *Surgery and Society in Peace and War: Orthopaedics and the Organization of Modern Medicine, 1880-1948* (London: MacMillan Press, 1993). See also: SED Shortt, "Physicians, Science, and Status: Issues in the Professionalization of Anglo-American Medicine in the Nineteenth-Century," *Medical History* 27 (1983): 51-68.

⁸³ Porter, *Quacks*, 103. On specialization: George Rosen, *The Specialization of Medicine* (New York, 1944); Rosemary Stevens, *Medical Practice in England and the Impact of Specialization and State Medicine* (New Haven, 1966); Glenn Gritzner and Arnold Arluke, *The Making of Rehabilitation: A Political Economy of Medical Specialization* (California: University of California Press, 1985); George Weisz, *Divide and Conquer: A Comparative History of Medical Specialization* (New York: Oxford University Press, 2005).

circumstances, and became self-regulating, such as Abbott's concept of "jurisdiction."⁸⁴ The construction of a medical and surgical community with shared values, knowledge, and identity, is essential for understanding how practitioners sought to cultivate themselves as a unique group built around a collective desire to maintain their jurisdiction over specialized treatment for a particular public, particularly outside of the medical elite, as George Weisz has argued for the case in London.⁸⁵

The practice of boundary maintenance and discontent among aurists led them to articulate various identities throughout the 1810s to 1850s to differentiate themselves from itinerant "quack aurists." They especially relied upon what they referred as the rhetoric of "medical science," in order to reconfigure epistemological claims for aural surgery and acknowledge a more respectable identity for the profession.⁸⁶ As some historians have argued, the nineteenth century appeal to the rhetoric of "science" was often used as a tool for a practitioner's quest for specialized or professional authority, but what "scientific" meant among aurists, however, it is not always clear.⁸⁷ In some cases, it was used to advocate a routine of careful and honest diagnosis and therapeutic care without blatant advertising, as William Wright stated: "let honor and integrity

⁸⁴ Max Weber, *Economy and Society* (Totowa: Bedminster Press, 1968); Talcott Parsons, *The System of Modern Societies* (Prentice-Hall, 1971).

⁸⁵ George Weisz, "The Emergence of Medical Specialization in the Nineteenth-Century," *Bulletin of the History of Medicine* 77.3 (2003): 536-574.

⁸⁶ Brown, *Performing Medicine*, 116. John Harley Warner, "The History of Science and the Sciences of Medicine," *Osiris* 10 (1995): 164-193.

⁸⁷ Gavrus, "Men of Dreams," 61. The building of a specialized identity also fits with what Gravus calls "rhetorical performance," in which "the speakers defined the scope of their practice, advocated for specific policies, and policed the purlieus of their specialities." Though none of the aurists discussed in this dissertation actually "took to the stage" like Gavrus's neurosurgeons, they did carefully craft a particular image of themselves and what they wanted their speciality to represent. Delia Gavrus, *Men of Strong Opinions: Identity, Self-Representation, and the Performance of Neurosurgery, 1919-1950* (University of Toronto PhD Thesis, 2011) 9.

rule the conduct, and reasonable scientific treatment be adopted.”⁸⁸ In other circumstances, “scientific” referred to the practice of reasonable medicine based on theoretical principles and supplemented with explanations of physiology and anatomy of the ear—that is, advocating surgery and clinical medicine, rather than nostrum vendors, as James Yearsley asserted.⁸⁹ Surgeons could also construct and invoke their expertise through the technologies, mirroring that expertise to their social competence—in this case, completely redrawing the social image of deafness⁹⁰ The rhetoric of science—and specialization—could additionally elevate a practitioner’s career and status in society by merging his individual identity into the collective identity of the broader occupational group, as Michael Brown has outlined, and shaping the formation of specialized knowledge.⁹¹ This point is readily emphasized in the transformation of John Harrison Curtis’ reputation as a skilled aurist: heralded by newspapers as the “great aurist” during the 1820s, his career fell after a series of publicized debates with other aurists over various kinds of treatments for ear diseases, despite his claims to “science,” to the point he was ostracized as an “empiricist” and pushed to resign his post as director of the Royal Dispensary for Diseases of the Ear (est. 1816) during the late 1830s.

⁸⁸ Wright, *Plain Advice*, 177.

⁸⁹ Michael Worboys, “Science and the Practice of Medicine in the Nineteenth Century,” *Isis* 102 (2011): 109-115; W.F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994). John Harley Warner, “Ideals of Science and their Discontents in Late Nineteenth-Century America,” *Isis* 82 (Sept. 1991): 458-478. In addition, as Thomas Schilich has argued, control and standardization paved the way for the “modernization” of surgery in the late nineteenth century. Along with new spaces of control, instruments provided the best means whereby surgeons could assess their domain over patient’s bodies. Thomas Schilich, “Surgery, Science and Modernity: Operating Rooms and Laboratories as Spaces of Control,” *History of Science* 45 (2007): 231-56.

⁹⁰ Christelle Rabier, “Defining a Profession: Surgery, Professional Conflicts and Legal Powers in Paris and London, 1760-1790,” in Christelle Rabier (Ed), *Fields of Expertise: A Comparative History of Expert Procedures in Paris and London, 1600 to Present* (Newcastle: Cambridge Scholars Publishing, 2007), 85-114; 106.

⁹¹ Brown, *Performing Medicine*.

Aural surgery certainly provides us with a brief glimpse into a setting in which a community of practitioners sought to forge a common identity under the auspices of what they regarded to be a “profession” and attempted to claim their authority within the public sphere. Furthermore, its history raises fundamental questions about what the nature of “profession,” “professional,” and “specialist” meant to a group of aurists that strove to imagine themselves as a community, but at times, struggled to shape a distinct collective identity that could protect themselves from accusations of quackery. Faced with both external and internal challenges, the construction of aurists’ authority was not based on the classical sense of trust or even obedience based on training and certification, but rather on the social and cultural legitimization of their right to practice aural surgery based on their achievements—whether or not they were considered as “legitimate” by “orthodox” practitioners.⁹² Aurists cultivated their specialized identities accordingly to what they considered as a professional and acceptable social identify as well as how they envisioned their positions in society as medical entrepreneurs and practitioners.⁹³ But this does not presuppose that these aurists were striving for a unified profession, or even that there existed one. As Margaret Pelling notes, uniformity was not characteristic of medical practitioners even in the nineteenth century.⁹⁴ Rather, these aurists’ sense of “profession” could be understood in the sense of Michael Brown’s imaginative category, “the discursive expression of what certain medical practitioners imagined they were doing, or

⁹² Hannah Barker, “Medical Advertising and Trust in Georgian England,” *Urban History* 36.3 (2009): 379-398.

⁹³ Margaret Pelling, *The Common Lot: Sickness, Medical Occupation and the Urban Poor in Early Modern England* (London & New York: Longman, 1998), 11, and chapter 10, “Trade of Profession? Medical Practice in Early Modern England,” 230-258.

⁹⁴ Pelling, *The Common Lot*, 256.

more importantly perhaps, of what they *should* be doing."⁹⁵ Forms of collective identity were new to the nineteenth century as practitioners presented particular visions of their speciality and attempted to unify with "common experiences, knowledge, and a shared ideology."⁹⁶ Aurists viewed their legitimization differently, self-fashioning themselves as how they intended to profess their skills and expertise. The transitory nature of their self-fashioning thus provides us with a historically specific circumstance in which a group of medical practitioners insisted on eliminating competitive entrepreneurship to embrace professional unification as a means for establishing their surgical authority.

CHAPTER BREAKDOWNS

From the Hands of Quacks is divided into five chapters, with each chapter aiming to retrieve some of the complexities of aural surgery and the different approaches in which aurists made claims for their legitimacy. Chapter One, *Popular Prejudice and Medical Intervention: Aurists and the London Asylum for the Deaf and Dumb* breaks down the rhetoric of "popular prejudice" by examining how the London Asylum (est. 1792) constructed a paternalistic image of the deaf, and how this image barred John Harrison Curtis and William Wright from imposing their surgical authority upon the institution. Both Curtis and Wright argued that the "popular prejudice" blinded the Asylum from accepting necessary specialized care for the pupils, and consequently, children who were otherwise "not really deaf," were left in the Asylum and prevented from becoming "full beings." Further, they insisted that by curing the ailments of the Asylum's pupils, they could

⁹⁵ Michael Brown, "Medicine, Reform and the 'End' of Charity in Early Nineteenth-Century England," *English Historical Review* 124 (December 2009): 1-36.

⁹⁶ *Ibid*, 6.

drastically reduce the number of pupils admitted into the institution, thus reducing overcrowding situations.

Continuing with institutional history, Chapter Two, *An Institution for Fashionable Medicine: The Early Years of the Royal Dispensary for Diseases of the Ear* narrates a contrasting approach to the relationship between medical and social perceptions of deafness by examining the early history of the Royal Dispensary (RDDE), which was founded in 1816 by John Harrison Curtis. The RDDE became the first nationally recognized institution in Britain providing specialized care for deafness and propelled the fashionable trend of aural surgery once George IV gave his patronage. The popularity of the RDDE and Curtis' resulting social celebrity even encouraged other aurists to seek out new positions by appealing to the gentry's taste for fashion, especially fashionable medicines.⁹⁷ By demonstrating that the RDDE occupies a central place within the history of aural surgery and examining the "consultative relationship"⁹⁸ between aurists and patrons, this chapter argues the institution and Curtis' medical innovations provide an interesting historical insight into constructions of deafness and hearing, as the objectives of the institutions blurred boundaries between medicine and philanthropy.

Chapters Three, Four, and Five outlines several ways that aurists strove to undermine the monopoly of educational asylums and contest criticisms from other medical practitioners, in order to gain control over the management of the deaf. From c.1820 to c.1850, a flood of aural surgery treatises entered the market, introducing new innovations, technologies, diagnosis, and explanations for ear diseases and deafness, challenging the prevalence of the "popular prejudice."

⁹⁷ For instance, N.D. Jewson remarks that certain "fashion" in medicine provided a form of social behavior which set a framework for medical practitioners to establish their credentials and advertise their services. Jewson, "Medical Knowledge and the Patronage System."

⁹⁸ Jewson, "Medical Knowledge and the Patronage System in 18th century England," 370.

Chapter Three, *Explorations into the Eustachian Tube: Creating Public and Professional Trust* narrates how animosity between aurists and debates over “quack aurists” and the “popular prejudice” reached a crescendo during the summer of 1838 with the highly publicized inquiries against the aurist Alexander Turnbull (c.1794-1881). Within a week, two of Turnbull’s patients died following a disastrous catheterization of the Eustachian tubes, a passageway linking the middle ear to the pharynx, the upper part of the mouth located just below the top of the nose.⁹⁹ The death of the second patient, 18-year-old Joseph Hall, initiated another coroner’s investigation, this time led by Thomas Wakley (1785-1862), Coroner of Middlesex and editor of *The Lancet* who publicly campaigned against incompetence and quackery in medicine.¹⁰⁰ As elements of the case, including details of Eustachian tube catheterization, were made available to the lay public and medical commentators through newspapers, some aurists feared negative portrayals of aural surgery, or at the very least, catheterization, would derail their attempts for consensus and undermine their credibility as surgical specialists.

Chapter Four, *Specializing a Profession: Curtis’ Quest for Surgical Authority*, examines how a plethora of viewpoints over treatments led to the creation of a competitive (and somewhat hostile) environment as aurists sought prestige and position and offered a multiplicity of treatment options within the medical marketplace. The source of these conflicts, however, resided in the lack of a cohesive identity, which weakened aurists’ attempts to forge their authority as skilled experts on a particular part of the body and to challenge social assumptions that asylums were the only viable means for managing the deaf. Building upon scholarship on medical

⁹⁹ One of the primary functions of the Eustachian tube is to equalize air pressure between the middle ear and the outside atmosphere. Most of the time the tube is closed, but occasionally opens to let small amounts of air in, and to prevent damage to the ear drum.

¹⁰⁰ "Catheterism of the Eustachian Passages: Death of Joseph Hall, in Russell-Square," *The Lancet* 32 (August 3, 1839), 686.

specialization, this chapter highlights Curtis' introduction of the "cephaloscope" in 1841, a diagnostic instrument that would enable aurists to better discern between incurable and curable types of ear diseases. This chapter argues that the cephaloscope was Curtis' pledge of medical verisimilitude and a promise to strengthen aural surgery's surgical authority and its need to accomplish specialized and "professional status," by providing approaches for regulating aural knowledge.¹⁰¹ Described as a long wooden tube with an ivory ear-piece at one end for the aurist to listen to, and a large bowl for enveloping a patient's ear, auscultation with the instrument allowed the aurist to detect whether any blockages or structural defects were present in the ear passages. It offered sage and painless examination and was advertised for its efficiency in forming a diagnosis and determining whether a case of deafness was curable.

Both the cephaloscope and the instruments for Eustachian tube catheterization can fall under the rubric of Foucault's concept of "technologies of normalization," instruments manifested as a way of thinking about biological and social differences and on normalcy as well as forms of social control.¹⁰² The cephaloscope was designed for the aurist to discern between incurable and curable deafness, in order to distinguish which types of patients were capable of being restored to "normalcy," whereas the catheter (as well as the air press) was an attempt to surgically restore normalcy—essential tools for controlling the "anomalies" in the (social) body.¹⁰³ These technologies were perhaps the first step in surgically classifying deafness and various ear diseases, leading to the eventual medicalization of deafness, or the "biologizing" of social

¹⁰¹ Jaipreet Virdee-Dhesi, "Curtis' Cephaloscope: Deafness and the Making of a Surgical Speciality in 19th century London, *Bulletin of the History of Medicine*, 87.3 (2013): 347-377.

¹⁰² Peter Conrad, "Medicalization and Social Control," *Annual Review of Sociology* 18 (1992): 209-232.

¹⁰³ Paul Rabinow, *The Foucault Reader*, (Pantheon, 1984), 21.

variations, as Harlan Lane explains, during the late nineteenth and early twentieth centuries.¹⁰⁴ Perhaps a better term would be “technologies of treatability,” in which the possibility of curing deafness through these surgical and diagnostic instruments meant that deafness needed to be cured—ineliminately political technologies, so to speak.¹⁰⁵ Far from advocating an anachronistic stance, what I suggest is that these technologies and the justifications for their surgical authority provide us with an approach for evaluating the relationship between medicine and the deaf as a social group in order to contextualize its complicated and tense history.

As aurists fiercely competed with each other for positions, status, and patients, accusations of quackery became rampant. Social commentators even considered quackery characteristic of the field, thereby undermining, if not ridiculing, several prominent aurists. Chapter Five, *Priority, Piracy & Printed Directions: Expertise and the Artificial Tympanum*, expands on the discussion of expertise, examining the development of the artificial tympanum, a prosthetic for treating eardrum perforations. Developed and popularized by James Yearsley and Joseph Toynbee, the development of this device is tied together with multiple threads of history: to hearing and sound reproduction technologies, to anatomy and pathology, to quackery and patenting, to Victorian self-image and prosthetics, to advertising and marketing. This Chapter uses the artificial tympanum as a tour guide for investigating how Victorian aurists governed their expertise to claim legitimacy of their specialty, by applying theories of sound conduction and anatomy of the ear in the construction of the device. The artificial tympanum is an interesting case of a medical technology structuring surgical service. As Carsten Timmermann and Julie Anderson points out, medical technologies include commodities (drugs or devices), practical knowledge or procedures

¹⁰⁴ Harlan Lane, “Do Deaf People have a Disability?” *Sign Language Studies*, vol.2 no.4 (Summer 2002): 356-379.

¹⁰⁵ Langdon Winner, “Do Artifacts Have Politics?” *Daedalus* 109 (Winter 1980): 121-136.

(systems) that guide the structure or organization of medical practice.¹⁰⁶ The “medical life” of this innovation can be explained in part by the social, cultural, and political processes that guided its development: an emphasis on a “cure” for deafness, claims for surgical authority, and the intra-professional strife that characterized aural surgery.¹⁰⁷ Creating and applying new types of expertise—clinical experimentation, pathological anatomy, statistics—allowed aurists, especially Yearsley and Toynbee, to redraw the boundary lines for their specialty. The redrawing was largely aimed at making clearer distinctions between the “qualified aurist” and the “quack aurist” and is reflected in Yearsley and Toynbee’s respective selecting of materials in the construction of the artificial tympanum: Yearsley’s use of cotton wool followed a series of rigid clinical trials, whereas Toynbee based his India-rubber design upon anatomical observations and theories of sound conduction.

Much of the materials used for the chapters have derived from printed primary sources, particularly texts written by aurists, local newspapers, periodicals, and pamphlets. Certain archives provided much of the foundation for selected chapters. The Southwark Local Studies Library and Archives and the UCL Ear Institute & Royal National Institute for Deaf People Library, Archives & Manuscripts have provided much of the context for Chapter One. The Royal Ear Hospital Archives have provided indispensable insight for Chapter Two. Correspondence between aurists and other medical practitioners and government officials were found in the British Library Manuscripts Collection, the Royal College of Surgeons Archives, Duke University, Birmingham University, and the Wellcome Library Archives and Manuscripts Collection. The papers of Joseph

¹⁰⁶ Carsten Timmerman and Julie Anderson, *Devices and Designs: Medical Technologies in Historical Perspective* (New York: Palgrave MacMillian, 2007).

¹⁰⁷ John Pickstone (ed.), *Medical Innovations in Historical Perspective* (New York: St. Martin’s Press, 1992); Robert Bud *et al* (eds.), *Manifesting Medicine: Bodies and Machines* (Amsterdam: Harwood Academic Publishers, 1999).

Toynbee and George Toynbee at the Bodleian Library were rich for constructing aspects of Joseph Toynbee's private life as mentioned in Chapter Five. A full list of the archives and manuscripts collection is outlined in the Bibliography section of this dissertation.

The story of aural surgery is inseparable from the history of deafness in nineteenth-century Britain. *From the Hands of Quacks*—a phrase apocryphally attributed to Joseph Toynbee—examines the changing public identity and transformation of aurists' self-image in their quest for surgical authority and professional legitimatization by examining the strategies aurists invoked to undercut the rhetoric of “popular prejudice.” Beginning with the growing popularization of aural surgery during the 1800s and how the field gained the spotlight on a national platform and became intertwined with royal fashion and extravagance, this dissertation traces the development of various self-images of aurists and ends with the broader view of the field’s surgical authority and aurists’ claims for standardized knowledge to definitely define the “quack aurist.” By no means does this dissertation claim that aural surgery became “scientific,” “modern,” or even “progressive”—such claims are anachronistic—but rather, it suggests aurists employed different strategies in order to improve the fragile state of their reputations and had different expectations from their field during the 1850s than they did in the 1800s.

1. POPULAR PREJUDICE & MEDICAL INTERVENTION

AURISTS AND THE LONDON ASYLUM FOR THE DEAF AND DUMB

INTRODUCTION

In the 1819 edition of *Leigh's New Picture of London*, Samuel Leigh commented on the operating systems of several charitable institutions in Britain, including the London Asylum for the Deaf and Dumb, established in 1792 by Reverend John Townsend (1754-1826).¹ Originally called the "Asylum for the Support and Education of the Deaf and Dumb Children of the Poor," or more informally, the "Bermondsey Asylum," the institution focused on the "moral management" of its pupils by advocating a three-fold goal for education based on religious instruction, intellectual development, and material well-being. Its success in educating and training deaf pupils did much to transform the operating system of charitable institutions in Britain. Consequently, the London Asylum has "been at the forefront of all advances made in deaf education over the last two hundred years" in Britain.² As Leigh declared,

¹ The London Asylum was demolished in 1886. By 1902, pupils were relocated to Margate, where the Asylum was reincarnated as the Royal School for Deaf Children, Margate (RSCDM). According to several historians of deaf history, including John A. Hay, Peter Jackson, and Mary Beth Kitzel, RSCDM holds archival records of the institution dating back to its foundation in 1792, including letters and committee records discussing their resistance against medical experimentation. However, repeated requests to access the RSCDM archives have been ignored or denied, even with a letter of introduction from John A. Hay, Chair of the British Deaf History Society. I am indebted to Mr. Hay and to Mr. Jackson for their assistance. Much of this chapter owes to the archival materials and the generous assistance of Dominic H. Stiles at the RNID Library and Stephen Potter at Southwark Local Studies Library.

² Patrick Beaver, *A Tower of Strength: Two Hundred Years of the Royal School for Deaf Children Margate* (Sussex, England: The Book Guild, Ltd., 1992), 16.

By this excellent institution, extensive and successful arrangements are made to teach even the deaf and dumb! So long ago as 1653, the celebrated Dr. Wallis first laid down the principles by which the deaf and dumb might be instructed...and when it is considered how long the art of instructing these objects had been known...it must excite astonishment that no effectual attempt was before made to extend the required assistance. It is painful to reflect, how many must have lived in misery, and died in ignorance, who might have been materially benefited, had there existed this character!...What will not perseverance accomplish,—what cannot science effect?³

Leigh also described the institution's success with "moral and religious instruction" for its deaf pupils, which enabled them to "speak, read, write, cipher, and comprehend the meaning and grammatical arrangement of words." The commentary clearly emphasized the need to remove deaf-mutes from a state of misery and ignorance, for deafness was a "social tragedy" preventing the deaf from hearing the word of God.⁴ Despite sporadic efforts during the seventeenth and eighteenth century to teach the wealthy and aristocratic deaf variations of speech-training (artificial speech), finger-spelling, signs or lip-reading, the deaf were mainly perceived as curiosities, whose "mental and moral nature [was] imprisoned."⁵ This image of deafness persisted into the nineteenth century.

Even before the establishment of the London Asylum, the English public were already aware of the possibilities of educating and training deaf-mutes, with tales of the famous Duncan Campbell (c.1680-1730) making rounds during the eighteenth century. Claiming to be deaf and blessed with the gift of "second sight" that enabled him to write and predict people's futures, Campbell travelled through England, marvelling people with his magical powers. His reputation

³ Leigh's *New Picture of London* (Printed for Samuel Leigh, 18 Strand; by W. Cloves, Northumberland Court, 1819).

⁴ Beaver, *A Tower of Strength*, 15.

⁵ W.R. Scott, *The Deaf and Dumb, their Education and Social Position*, 2nd Ed. (London: Bell & Daldy, 1870), 63.

gained such notoriety that Daniel Defoe (1659/61-1731) wrote a biography on him, *The History of the Life and Adventures of Mr. Duncan Campbell* (1720), which spawned further commentaries on Campbell's gifts. As Christopher Krentz notes, all of the press makes Campbell possibly the first major deaf character in literature and figure of consequence in deaf and disability history.⁶ What Campbell's saga reveals is how widespread ideas about the deaf began to transform. Instead of being seen as confined on the fringe of society, Campbell demonstrated to an eager public that through education and proper training, the deaf were able to integrate and communicate with hearing society, embark on a career, and function economically. While deaf individuals in the eighteenth century had perfectly "normal" lives, as Emily Cockayne has argued, many were illiterate and believed impossible to educate. Thus, Campbell's significance resides in his popularization of the notion—more so than any other deaf individual—that deaf people *could* be educated and that they *should* be educated.

The possibility that the deaf could be taught to communicate was an established notion since John Bulwer's (1608-1656) *Philosophus, or the Deaf and Dumbe Man's Friend* (1648), which was used to privately instruct deaf children. Yet, the first school for deaf-mutes was not established until 1760. Thomas Braidwood's (1715-1806) Academy was founded in Edinburgh when Alexander Shirreff, a wealthy merchant, asked Braidwood, a mathematics teacher, to educate his ten year old son, Charles Shirreff (1750-1831). Charles' mastery of reading and writing

⁶ Christopher Krentz, "Duncan Campbell and the Discourse of Deafness," *Prose Studies* 21.1 (2005): 39-52. The question of whether Campbell was *actually* deaf has been a subject of debate among historians of deaf and disability history. Harlan Lane and Lennard Davis label him a fraud while other critics treat him as if he was actually deaf. But I'm not concerned with whether or not Campbell was deaf, for as Krentz rightfully insists, deafness is a matter of discourse; the audiological status of a historical individual can only be made through judgment: "These competing interpretations make clear that Campbell's deafness is largely a product of discourse, a social construction more than any biological difference—thus discourses about Campbell, or on any deaf individual in history points not only to the elusiveness of deafness, but they also reveal a great deal about 18th century Britain and their perceptions of deafness" (40).

inspired Braidwood to abandon his aspirations for teaching mathematics and devote the remainder of his life educating deaf children of wealthy parents. His school eventually became colloquially known across the country as Braidwood's Academy for the Deaf and Dumb and would become the exemplar for British education for the deaf.⁷ Braidwood did not publish his system of education, unlike the Abbé Charles Michel de l'Epée (1713-1789), who established the Royal Institution of Deaf-Mutes in 1760 (renamed *Institution Nationale des Sourds-Muets* in 1791). L'Epée published his system of signs (Signed French), and advocated education based on the *l'esprit philosophique* as preached by Rousseau, Voltaire, and Diderot. When Braidwood moved the Academy to Hackney, London in 1793, only members of his family were told his secret methods. After his death in 1806, his wife and son carried on the academy, though his nephew, Joseph Watson (1765-1828) would go on to the London Asylum for the Deaf and Dumb and eventually publish Braidwood's methods in *Instruction of the Deaf and Dumb* (1809).

The Academy demonstrated to the public that the deaf could, indeed, be taught. The achievements of some of Braidwood's pupils also revealed the remarkable benefits of education for the deaf. John Goodricke (1764-1786) became a famed astronomer and elected as fellow of the Royal Society at age 21. Francis MacKenzie (1754-1815), later the 6th Lord Seaforth, became Member of Parliament and Governor of Barbados from 1800-1806. None of these individuals had any understandable speech and largely relied on sign language or writing for communication purposes, but the fact that they were *able* to communicate and understand was significant.⁸ L'Epée couldn't claim the same public recognition for his pupils. For one thing, most of his pupils were poor and not expected to fulfil some social position as the children of Braidwood's wealthy and

⁷ Peter W. Jackson, *Britain's Deaf Heritage* (Edinburgh: The Pentand Press, Ltd., 1990), 21.

⁸ Jackson, *Britain's Deaf Heritage*, 22.

aristocratic parents; this clearly reflects the British hierarchy and class system that differed from French revolutionary claims to equality in education.

As a private academy, Braidwood's school did not extend its education to the poor deaf and dumb population. Beginning with the founding of the Bermondsey Asylum in 1792, educational institutions for the poor deaf were established to fill this gap, and were largely established as part of the wider evangelical movement for social reform. These institutions, which grew exponentially in the nineteenth century, not only insisted that the deaf were worthy of education, but were driven by a missionary zeal that constructed education as a charitable enterprise. Relying upon private benevolence and public donations, the institutions advocated intellectual development, religious instruction, and material well-being as part of its curriculum. Pupils were instructed with a mixture of speech and sign. Essentially, these schools became residential institutions to not only educate, but also protect the deaf until they were trained to venture into society, a notion reflected in an anonymous pamphlet circulating around 1800:

for a social being to be deprived of all the consolations of social intercourse, this alone would be a state of privation, calculated to call forth in his behalf the warmest sympathies of benevolence. And none can surely comprehend better than the intelligent and kind-hearted, how lonely, how cheerless, how desolate the lot—what a wilderness of faces, and solitude of hearts, must this world be, to a deaf mute uneducated...A being endowed with an immortal soul, a responsible creature, is living without God in the world.⁹

In contrast to the *l'esprit philosophique* of late eighteenth century France which precipitated a flurry of complex intellectual theories rooted within a rationalistic and empirical spirit, the British approach to education and treatment of the deaf was strongly driven by a basic utilitarian

⁹ Quoted in John Townsend, *Memoirs of the Rev. John Townsend, founder of the Asylum for the Deaf and Dumb and of the Congregational School*, 1st American Edition (Boston: Crocket & Brewer, 1831), 45.

philosophy. Uninspired by the French philosophers' creative epistemological speculations towards sensory deprivation and the problem of language, British educators for the deaf maintained an overarching devotion to "religious zealotry, political conservatism, and a stereotypical social philosophy."¹⁰ Constructing the deaf as pitiable outcasts requiring fierce evangelical reform, they emphasized the need for "correcting" the obvious manifestations of deafness—namely, the lack of speech—and training the deaf to fully integrate into hearing society. Furthermore, as evangelists encouraged charity as an honourable activity, a sign of one's nobility of spirit as well as benevolence, a religious mission to "save souls" cloaked the instruction of the deaf. The deaf were seen as objects of pity as well as charity for they were shut out from "hearing" the word of God. Benefactors of these schools argued that the success of the educational system was pivotal for assisting the deaf in improving their quality of life and their lot in society.

The early nineteenth century has thus been considered as the "golden age" for deaf people, a period highlighted with progress and respect for their language, though some historians of deaf history have disagreed with this sentiment, arguing that the achievements of the deaf were merely viewed by society through the eyes of hearing benefactors.¹¹ One aspect of this view has to do with the institutional history of deaf education. As nineteenth-century Britain was self-consciously "an age which boasts much of its philanthropy," charities became popular with the lay public, who saw them as reflective of their own moral and social values as well as a national responsibility.¹² However, the increasing proliferation of charities and charitable causes meant there was an

¹⁰ Jules Paul Seigel, "The Enlightenment and the Evolution of a Language of Signs in France and England," *Journal of the History of Ideas* 30 (1969). 96.

¹¹ Phyllis Valentine, "Thomas Hopkins Gallaudet: Benevolent Paternalism and the Origins of the American Asylum," in *Deaf History Unveiled: Interpretations for New Scholarship*, ed. John Vickery Van Cleeve (Washington, D.C: Gallaudet University Press, 2000), 53-73.

¹² Amanda Borgen, "The Public Examination of Deaf and Blind Children in Yorkshire, 1829-1890," *Northern History* 41.1 (March 2004): 149-162; 150.

increased competition within charitable institutions for funds. According to Amanda Borgen, in an “age of facts, figures, and rational calculation, charitable donors became increasingly desirous of seeing that their money was well spent. Charities which could demonstrate their efficiency were more likely to attract the discerning donor.”¹³ Residential schools for the deaf, such as the London Asylum, of course, were the most costly form of charitable institution. Largely financed by a contribution of subscriptions, donations, legacies, and in some cases, fees, these schools expanded their reach for marketing in order to ensure funds were readily available, especially through life long subscribers.¹⁴ Publicity was vital to the success for institutions of the deaf. According to Borgen, the claims of charity not only had to be upheld and vigorously promoted so as not to lose out to the competition, but it also raised awareness of the existence of the charity and helped attract additional beneficiaries.

These schools were part of a hegemonic way of thinking about language and education, with the ultimate goal of “normalizing” the deaf population and either integrating them into society as productive citizens, or else isolating them within the secured gates of an asylum. In *Damned for their Difference: The Cultural Construction of Deaf People as Disabled* (2002), Jan Branson and Don Miller explain that normalization was the driving force for moral therapy movements in the late eighteenth and early nineteenth centuries. The missionary zeal characteristic of the London Asylum and other reform programs in Britain were based on the predilection that there existed a clear boundary between the “normal” and the pathological,” which required the intrusion of medicine to deal with the “body” whereas “moral therapies” could

¹³ Borgen, “The Public Examination,” 151.

¹⁴ Borgen, “The Public Examination,” 152.

deal with the mind.¹⁵ Attempts to treat deafness were widespread long before the nineteenth century. Specific threads of Enlightenment thought, however, particularly Lockean sensationalism, language, and the application of alternative sensory stimuli, were woven to create new pedagogical and social advances for the deaf, by merging medical intervention with education.¹⁶ The *Institution Nationale des Sourds-Muets* for instance, employed several surgeons, including Jean-Marc Itard (1744-1838), who experimented with various surgical techniques on deaf pupils in order to link hearing with speech in his search for a cure for deafness. The work at the *Institution Nationale des Sourds-Muets* eventually “resulted in wide-ranging pedagogical experimentation, broadly based educational enterprise, the establishment of charitable foundations and state-administered schools, and the emergence of professional teachers.”¹⁷

Yet the example of French education for the deaf failed to transfer to British institutions. As Margaret Winzer explains, through most of the nineteenth century, the education of the deaf in Britain was marked by an ignorance of the psychology of deafness, and by “an unwillingness on the part of British theorists to apply fresh concepts of psychology and philosophy.”¹⁸ Not only did British educators for the deaf ignore the psychological principles that were developing in France, but also the foundational contributions of earlier British philosophers, including Bulwer and John Wallis (1616-1703) who sought to unlock the secrets of universal language through deaf individuals. Rather than advocating deaf education as a philosophical inquiry, British educators emphasized education as a charitable endeavour to evangelize the deaf and prepare them for

¹⁵ Jan Branson and Don Miller, *Damned for their Difference: The Cultural Construction of Deaf People as Disabled* (Washington, D.C.: Gallaudet University Press, 2002), 41.

¹⁶ Margaret Winzer, *The History of Special Education: From Isolation to Integration* (Washington, D.C.: Gallaudet University Press, 1993), 41.

¹⁷ Winzer, *The History of Special Education*, 5.

¹⁸ Winzer, *The History of Special Education*, 71.

integration into hearing society, inclining to the belief that sign language was dehumanizing and only speech-training could normalize the deaf. Deafness, educators argued, was a communication defect and could only be improved—or cured—through proper education based upon “moral management.” This perspective led to the design of a systematic education for the deaf that was marked not only by an ignorance of the medical psychology of deafness, but also an inability to accept medical and surgical recommendations for treatment—educators viewed medical intervention as a contradiction to their charitable endeavours to save souls.

The construction of deafness as an object for “moral management” emphasized that deafness was a social and educational problem, not a medical one. Educators not only argued deafness was a communication defect, but they intensified the boundary lines of aural surgery and deaf education by contesting the jurisdiction of aurists and arguing against the curability of deafness. The ideological basis of charity at deaf schools was especially frustrating for aurists who “saw the educational process as an integral part of the broader medical process,” such as John Harrison Curtis and William Wright.¹⁹ During the 1810s, Curtis and Wright both appealed to the London Asylum for an appointment within the asylum, after witnessing deplorable conditions, including many children plagued by diseases, possibly due to overcrowded conditions.²⁰ They argued the exclusion of aurists within educational asylums prevented children from being properly examined and treated by a skilled and trained practitioner; children afflicted with “mild” or temporary deafness were at risk of permanent deafness, which could derail the efforts of educators to integrate them into society. Proper treatment, Curtis and Wright argued, could not only reduce the number of children being unnecessarily admitted and thus reducing the

¹⁹ Branson and Miller, *Damned for their Difference*, 114.

²⁰ Personal correspondence with Peter W. Jackson, 25 January 2012.

deplorable conditions of the Asylum, but would also ensure deaf children were “cured” of their deafness and thus normalized. Moreover, they insisted an alliance between surgical treatment and education relied upon a sense of social responsibility to improve the state of the poor deaf and dumb, in a society that viewed the deaf as an isolated and deficient form of human rationality.

The London Asylum’s rejections of Curtis and Wright’s appeals were rooted in what aurists referred as the “popular prejudice” against the medical curability of deafness. The “popular prejudice” was a powerful rhetoric that not only undermined the efforts of aurists to integrate medical intervention with education, but also constructed a social image that propagated the notion of deafness as incurable. This made it increasingly difficult for aurists to assert their surgical authority, as their professional identity was publicly questioned. If deafness was not curable, then what role was there for aurists? Was aural surgery even a legitimate profession? Or, as *The Gentleman’s Magazine* stated, “[w]e can assert from particular experience that deafness is rarely curable, or even to be relieved...The profession of aurist in England, has been too much a cloak for fallacious promises, sheer quackery, and mere purse-milking.”²¹ To Curtis and Wright, not only did the “popular prejudice” question the role of aural surgery, but it also threatened to merge “pretended aurists” with the more legitimate aurists—as Curtis and Wright saw themselves—for the “popular prejudice” invoked a high degree of public mistrust against the very practitioner who professed a miraculous cure, on grounds that many tried and failed to cure deafness. Even if the “pretended aurists” did not run rampant, aural surgery’s insistence on finding a cure for deafness was troubling for those who advocated a psychological framework of deafness, arguing that it was a defect in communication, rather than a physiological or anatomical

²¹ *The Gentleman’s Magazine* 98.2 (December 1828), 611.

failing. To Curtis and Wright, defeating the rhetoric of “popular prejudice” was thus the first step towards claiming legitimacy for their professional identities and the authority of aural surgery.

This Chapter addresses how socio-educational reform ideals and institutional policies of the London Asylum frustrated the attempts of Curtis and Wright to implement procedures to “treat” or “cure” deafness. In examining the emergence of the London Asylum and the historical context of its institutional policies, I build upon Margaret Winzer’s view that institutions for the deaf were more than just places that housed the deaf and provided systematic education. They illustrate the way in which a society reacts and handles “problems of disease, dependency, disability, and they demonstrate how intervention is governed by a society’s structures and beliefs towards a disability.”²² The tensions between aurists and educators at the Asylum sparks a wider historical inquiry in which, by re-examining the relationships between deaf asylums and medical authority, we can trace social reactions towards deafness as a crucial indicator of the values and expectations of aural surgery. How could aural surgery shape itself as a discipline when faced with severe restrictions by educators advocating the “popular prejudice?” Where was the role of the aurist in these institutions and what meanings did this hold for deafness? And perhaps more importantly, was deafness—and rightfully, the deaf—a concept to be dealt with through education and instruction, or a concept that was to be confined in medical and surgical realms? Or, as the case in Paris, was it an element of both?

Historians have documented the institutional history of the London Asylum, tracing its foundation by Reverend John Townsend to its stance on sign language education and its eventual relocation and renaming as the Royal School for Deaf Children, Margate.²³ Rather than delving into

²² Winzer, *The History of Special Education*, 84.

²³ Raymond Lee and John A. Hay’s *Bermondsey 1792* (Middlesex, 1993) is the best source for the foundation year of the institution. Using the archives at Margate and the Southwark Local Studies, Lee and Hay bring

depth into the early relationships between educators and medical practitioners lobbying for a position at the Asylum, the institutional history is narrated within the framework of the development of sign language and oral education, as well as the triumph of deaf identity. A vital aspect of deaf history is glossed over, but by weaving together histories of deaf education and medical intervention, my aim in this Chapter is to nuance traditional histories of the “medicalization” of the deaf. Scholars of deaf history have divided the construction of deafness into (a) a pathological defect requiring medical intervention and (b) as a cultural community with a distinct language and identity, rooting the 1880 Milan Congress as a key chapter in the divided legacy. The Congress passed resolutions banning sign language in education, advocating speech therapy, oral education, and defining deafness within the utilization of medical experts. While this event was a turning point in the history of deaf education, I trace the debate between educators and medical experts to a much earlier point in history: the London Asylum’s rejection of proposals from aurists asking for access to deaf pupils in order to “cure” their deafness. The question of who had the right to take care of the deaf in the nineteenth century is a complex and multidimensional one, but by narrowing the focus, we can hopefully paint a fuller picture of the history of a divided legacy. The persistence of practitioners in proposing stricter criteria for diagnosis, their calls for a specialized aurist to be employed at the Asylum, as well as the strength of the Asylum’s

alive the story of Townsend’s tireless efforts to ensure education was made available for the deaf. Patrick Beaver’s *A Tower of Strength: Two Hundred Years of the Royal School for Deaf Children, Margate* (Sussex, 1992) provides a more detailed history of the school, including the experiences of deaf children and the various forms of learning and training obtained. Peter W. Jackson’s *Britain’s Deaf Heritage* (Edinburgh, 1990) places the history of the Asylum within the context of wider interests and developments of deaf education. John Townsend, a descendant of Reverend John Townsend’s brother George, wrote *John Townsend: Champion of Georgian Charity* (Ottawa, 2007), using family letters and archival materials to document the history of the Asylum’s founder. The history of the establishment of the London Asylum is also discussed in numerous texts on the history of deaf education, including the works of Branson and Miller, Winzer, Borsay, M.G. McLoughlin’s *A History of the Education of the Deaf in England* (Liverpool, 1987), and Kenneth W. Hodgson, *The Deaf and Their Problems: A Study in Special Education* (London, 1953).

committee's rejection of these proposals is valuable for revealing the history of the transformation of deafness into an object of medical investigation.

This Chapter begins by examining Townsend's foundation of the London Asylum and how the broader British society responded to tales of successful deaf education and constructed a paternalistic image of deafness. I argue the success of the London Asylum as a charitable institution did much to curtail the efforts of aurists, for the Governing Committee at the Asylum encouraged the proliferation of the "popular prejudice" to protect its pupils as well as its subscriptions. Furthermore, I argue that the dialectical nature of the social and medical meanings of deafness meant educators and aurists competed for monopoly in treatment, a competition which did much to define the practice of aurists in early nineteenth-century Britain. While practitioners who focused on the ear in general were more concerned with finding the physiological causes and cures for deafness than with the social implications of their findings, aurists like Curtis and Wright recognized the necessity of integrating social reform into their medical practice. They claimed that in order for their medical practice to succeed, they needed to defeat social misconceptions surrounding the curability of deafness in order to treat deafness effectively and enable their patients to fully integrate into hearing society.

REVEREND TOWNSEND & HIS CHARITY

John Townsend was born on 24 March 1757 in the impoverished parish of Whitechapel, where narrow lanes, slums, and industries housed some of the city's most destitute congregation. The waterfront was a haven for sailors, shipbuilders, and fishermen, as well as oil and soap manufacturers whose trades gave the area a stink that persisted long after factory hours.

Drunkards littered the streets, thrown out of alehouses to dry out before they headed back for more, or lost themselves in the arms of one of the many scarlet ladies working the nightshifts. Whitechapel was also where Townsend's father, Benjamin (1722-1790) was a member of the pewter foundry. The Worshipful Company of Pewters may have resided in squalor and offered few monetary benefits even for business done in the City, but it gave Benjamin a solid career and ability to provide for his family.

The Townsend family had a worthy lineage of individuals who took their church, family, and trade seriously.²⁴ Thus, religious servitude marked John's life from an early age. He may have been a self-centered and spirited child who found it boring to kneel for prayers, but he eventually came to understand the importance of being spiritually secure.²⁵ His childhood years at Swallows Gardens were stable and encouraging; his mother provided love and care while his father and namesake uncle—John the goldsmith—encouraged his education. He received rudimentary education through private tuition from a “patient old lady;” by the nine years old, he was formally presented by his uncle John and his friend William Brockett, to Christ's Hospital Grammar School at Newgate, starting his classical education in April 1766. The school was located next to Newgate Prison and within the bell sounds of St. Sepulcher's Church; many pupils there aspired to Trinity

²⁴ Benjamin was the youngest son of farrier James Townsend (1683-1743) and Mary Gray (1684-1726). James and Mary's other children also bore respectable trades for themselves: James (1708-1752) and George (1715-1771) followed their father's footsteps, Gray (1713-1738) was a clockmaker, and John (1711-1767) the wealthiest of them all, a goldsmith and jeweler. William (1720-1766), believed to be “deficient in intellect,” stayed at home, while Mary (1717-1754) was married off and Sarah, the youngest child, died as an infant. In light of the major religious denominations of the eighteenth century, Benjamin was later disinherited for his connections to George Whitefield (1714-1770), the Calvinist Methodist leader responsible for the “Great Awakening” and the birth of the evangelical movement. Philip Carter, “Townsend, John (1757-1826),” *Oxford Dictionary of National Biography* (Oxford University Press Online edn, Oct., 2005).

²⁵ John Townesend, *John Townsend: Champion of Georgian Charity* (Ottawa: Verity, 2007).

College, Cambridge and for Holy Orders. At age fourteen, John was withdrawn from school to be apprenticed to his father. Benjamin's eldest son George was already at St. Paul's school and the Townsends felt John either needed to follow his brother or learn a trade.²⁶ Referring to his father's influence and the humble path of poverty he observed that led him to withdraw from schooling, Townsend would later remark that "it is a greater mercy to be the child of providence than the child of fortune."²⁷ For the next seven years, John Townsend spent his days alloying tin with other materials, creating molds, and hammering pewter into flat sheets.

During this period Townsend also became familiar with the nature and extent of Whitechapel's surroundings, his daily excursions revealing the transience, violence, vice, and impoverishment of the area's people. At Tottenham Court Tabernacle one day, Townsend found himself inspired by Henry Peckwell's (1747-1787) Methodist sermons on the unwavering love of God. As dictated in his memoirs, Townsend was moved by the sermon and shortly after regarded church fellowship as a duty and privilege. Later days at the Tabernacle introduced him to other members of the congregation, including Reverend Thomas Beck of Deptford, who would become a lifelong friend and supporter. Townsend often accompanied Beck on his various engagements in London, even reading a sermon for him one day when illness struck.²⁸ "With the consciousness that he had neither education nor talents" for an office in ministry, Townsend avidly pursued theological studies during his spare time to prepare for a career in public service. By the time his apprentice was terminated in 1778, twenty-one year old Townsend passed his required examinations and departed to Lewes, Sussex, for six-weeks of supply preaching, a position that

²⁶ Carter, "Townsend, John (1757-1826)."

²⁷ *Memoirs of the Rev. John Townsend, Founder of the Asylum for the Deaf and Dumb, and of the Congregational School*, First American Edition (Boston: Crocker & Brewster, 1831), 10.

²⁸ Townesend, *John Townsend*, 17.

was later extended to eight months.²⁹ The position required Townsend to deliver two sessions on Sundays, one during the week, and occasionally in the surrounding villages. On 1 June 1781, shortly after marrying Cordelia Cahusac, Townsend was ordained Pastor and stationed his ministry at the Heather Lane Independent Church in Kingston, Surrey. Three years later, however, he resigned after members of his congregation became influenced by preacher William Huntington's (1745-1813) antinomianism, which encouraged the doctrine that believers had no obligation to moral law, since only faith could provide the path to salvation.³⁰

Expressing his desire to leave Kingston, Townsend contacted his friend Reverend Anthony Cerole about a position at a church in Bermondsey. On 28 October 1784, Townsend relocated to lead a congregation of Protestant Dissenters at the Jamaica Row Church in Bermondsey, where he was "beloved for his uniform practice of the pious, affectionate, and charitable virtues of the Gospel."³¹ The Jamaica Row congregation consisted of almost every denomination of Christians, all of whom welcomed the energetic and charismatic attitude of their young preacher. Inheriting a church in disarray with a history of mismanagement, Townsend claimed his first objective was to form the church on the model of congregational dissenters—preaching the principles of duties, character of church members, and taking the Holy Scripture as the basis of faith and practice—he became "more admired" by those who recognized and participated in his "professional duties and societal intercourse."³² Viewed as a persistent pastor and benevolent philanthropist, Townsend was considered "the friend and supporter of all the charitable institutions of those Christians

²⁹ *Memoirs of the Rev. John Townsend*, 12.

³⁰ Carter, "Townsend, John (1757-1826)."

³¹ *Gentleman's Magazine* 96.1 (March 1826): 278-280; 278.

³² *Ibid.*

whom his opinions of Divine Truth led him more immediately to associate with.”³³ His popularity earned him a simultaneous position as minister of the Independent chapel on Orange Street, Leicester, colloquially referred as “Townsend’s Chapel,” where he held the position until his death in 1826. He would later found various other charities, including the London Missionary Society, the Female Penitent Society, The Congregational School for Children of Dissenting Ministers, and various other Christian associations.³⁴

Townsend’s name, however, would “descend to posterity” as the founder of the Asylum for the Support and Education for the Deaf and Dumb Children of the Poor. He first became acquainted with the plight of the poor deaf and dumb when one of his parishioners, a Mrs. Creasy, conversed with him after a sermon about her experiences as a mother of two deaf and dumb children. Mrs. Creasy had sent her son, John Creasy (c.1774-1855) to Braidwood’s Academy where, for ten years, the boy demonstrated remarkable talent for mastering speech and communication. It was commonly perceived during the late eighteenth century that the “limited faculties” of deaf-mutes prevented them from demonstrating their intellectual capacities. As Robert Hawker (1753-1827), the vicar of Charles Church in Plymouth noted, for the deaf-mute, “there is no harmony of music; no sounds of words, no conversation of friends; no intercourse of society!”³⁵ It was a great surprise to Townsend that John not only learnt speech, but was also able to clearly express and communicate his ideas. Furthermore, John’s case showcased the value of education and even religious devotion: the deaf-mute did not need to be subjected to “uncomprehending brutality,” but could rather be allowed to excel in order to remove the shackles that imprisoned his mental and moral faculties.

³³ Ibid.

³⁴ Raymond Lee and John A. Hay, *Bermondsey 1792* (Middlesex: National Union of the Deaf, 1993), 1-2.

³⁵ Robert Hawker, *History of the Asylum for the Deaf and Dumb* (London: William & Smith Ltd., 1805), 7.

Despite John's remarkable success, Mrs. Creasey explained to Townsend that it was highly doubtful other mothers in Bermondsey with deaf children would be able to incur the expenses of £1500 for their children's education—an expensive sum, the totality of John's education over ten years. She pleaded "the cause of those afflicted and destitute outcasts of society, until Mr. T. entered into her feelings of commiseration, and decided with her on the *necessity* and *practicability* of having a charitable institution for the deaf and dumb children of the poor."³⁶ Agreeing with Mrs. Creasey on the importance of a charity that counteracted the privatization and expense characteristic of private tutors and Braidwood's academy, Townsend noted

for the benefit of the *entire class* of these unhappy children of penury, deprivation, and mental darkness, his enlightened and liberal mind immediately perceived that such an institution could not be generally useful, could not take in all the probable applicants,—could not, in short, obtain general support without the aid and patronage of the Established Church.³⁷

Such an institution resonated with Townsend's benevolence as well as the Christian doctrine that the deaf required their hearing benefactors to rescue them from their exile and "returned" to God.³⁸

Thus, it was "left to the preserving, arduous, indefatigable exertions of an humble individual, whose heart beat with love for the human race, to devote himself, and engage others, in this majestic work, till it rose his own lifetime, a monument of British generosity, and British sympathy."³⁹ Townsend frequently preached the principles of Christian charity, advocating the doctrine that a person's basic necessities should be met and that they were provided the benefits

³⁶ *Memoirs of the Rev. John Townsend*, 36.

³⁷ *Gentleman's Magazine* 96.1 (March 1826): 278-280; 279.

³⁸ Douglas Baynton, "'A Silence Exile on this Earth:' The Metaphorical Construction of Deafness in the Nineteenth Century," *American Quarterly* 44.2 (June 1992): 216-243; 220.

³⁹ *Memoirs of the Rev. John Townsend*, 38.

of benevolence. These principles could surely be exemplified in a charity designed for the purposes of instructing the poor deaf and dumb. On 1 June 1792, Townsend began soliciting subscriptions. Three of his friends contributed a guinea and Townsend contributed a fourth from his own funds. As noted by the anonymous editor of Townsend's *Memoirs*—revealed to be Susan Warner, the Reverend's niece⁴⁰—the Reverend met with philanthropist and banker Henry Thornton (1760-1815), who would later become the Governor and Banker of the Bank of England. Thornton raised his concerns that

as he had never seen a deaf and dumb child, he thought the number would be too small to form the projected institution. To this was argued the assurance given by Mrs. C., that she knew several, and had heard of many; Mr. Thornton then promised his support, and his banking house was named, with several others, to receive subscriptions. A prospectus was sent to the *Times* and *Morning Chronicle*, the circulation of which brought many applications from the poor.⁴¹

As noted by the writer John Townesend, the Townsend-Thornton relationship was particularly significant for it created the first direct link between Townsend and the Clapham Sect, a group of influential Anglican evangelists whose support would prove indispensable in many of Townsend's projects.

With Thornton's assistance, Townsend drew up a handbill advertising the new charity. He was already familiar with the power of handbills, often distributing a supply of tracts with the

⁴⁰ Revealed by John Townesend in *John Townsend*.

⁴¹ *Memoirs of the Rev. John Townsend*, 37. Raymond Lee and John Hay remark that despite the mentioning of "prospectuses" being printed in the *Times* and *Morning Chronicle*, an extensive search in the British Newspaper Library (Colindale) as well as the Burney Collection at the British Library yielded nothing (*Bermondsey*, 19, ft.15). I also failed, and did a further search in the 19th Century British Library Newspapers Database for reprints, but did not turn up anything. It's likely the prospectus was a looseleaf insert placed into the newspapers, given Townsend's habit of handing out handbills as he journeyed across the city.

Gospel story around Bermondsey to individuals, hospitals, workhouses, and prisons.⁴² The handbill emphasized that the community held a duty to alleviate the suffering of the poor, particularly the poor deaf and dumb who were unable to access the resources for improving their lot:

Children who are deaf and dumb, are more numerous than most persons imagine, and are not only miserable in themselves, and a great affliction and burden to their parents, but also in most cases totally lost to society. If all the circumstances attendant upon these afflicted objects are fully appreciated, it must surely be acknowledged, that their claim to our pity and benevolence is not only stronger, but that it ought to precede all others.

That there hath hitherto been no institution for the education of children of this description, whose parents are in indigent circumstances, has not been owing to, neither a want of humanity or generosity in our country; but rather, because the necessity of it had not been made obvious. The writer of this address has taken some pains to satisfy himself of this, and being convinced that the objects are numerous, has ventured to propose a subscription for the purpose of providing an asylum for them.⁴³

The handbill stressed that the deaf were, indeed, capable of receiving knowledge, as "demonstrated by matter of fact," and encouraged the parish to assist covering the expenses that "preclude the poor from all opportunity of benefiting by them."

Tirelessly handing out the handbill and inserting them in newspapers, Townsend generated much interest in the project. Handbills were even distributed when Townsend headed to Ramsgate to visit his brother, reaching the hands of Dr. John Coakley Lettsome (1744-1815), the Quaker physician in Grove Hill who became one of the charity's earliest contributors. In addition to the financial support from Thornton, Townsend solicited the acquaintance of Reverend Henry

⁴² Townesend, *John Townsend*, 27.

⁴³ Handbill, Southwark Local Archives Studies Library, also reprinted in Hawker, *History of the Asylum for the Deaf and Dumb*, 11-13.

Cox Mason (1756-1804), the Vicar of Bermondsey and member of the Bermondsey Parish Council, who proved to be a crucial influence to the campaign. As Lee and Hay explain, not only did Mason pledge his support and began a close working and personal friendship with Townsend until his untimely death, but the friendship disregarded their religious and sectarian divisions, and was rooted solely their sympathies for the suffering.⁴⁴

Having gained enough finances to initiate the project, on 30 August 1792, Thornton and Mason called a meeting for the forty-three subscribers who pledged their support at Paul's Head Tavern on Cateaton Street, Bermondsey. The subscribers were a diverse group of churchmen and nonconformist ministers, lay gentlemen, and members of the middle class, including: Thornton, Beck, John and William Parnell, family friends from Canterbury, Jesse Curling, a wealthy woolstaple, and Joseph Hardcastle, a gentleman and member of the Bury Street Independent Church, wealthy banker and Baltic merchant, who would become one of Townsend's closest confidants.⁴⁵ During the meeting, the subscribers established a "hierarchy of Patron, Vice-President, Treasurer, [and] Board of Governors...which appointed a committee of 24 and decided on an annual general meeting" to undertake the organization of the charity and ensure the institution would be running smoothly.⁴⁶ George Nugent Grenville (1753-1813), the Marquess of Buckingham, served as President, Thornton was appointed Treasurer, Mason the secretary. The committee of twenty-four consisted of churchmen and dissenters who would oversee the daily

⁴⁴ Lee and Hay, *Bermondsey 1792*, 12-13.

⁴⁵ Townseend, *John Townsend*, 31. On motivations of benefactors and subscribers, see: Sandra Cavallo, "The Motivations of Benefactors: An Overview of Approaches to the Study of Charity," in Jonathan Barry and Colin Jones (eds), *Medicine and Charity before the Welfare State* (London and New York: Routledge, 1991), 46-62.

⁴⁶ M.G. Loughlin, *A History of the Education of the Deaf in England* (Liverpool; G.M. McLoughlin, 1987), 5.

operations of the Asylum and select admissions among the applicants. Townsend was made Sub-Treasurer; his duties were largely to continue soliciting funds from across England.

The committee also took up an offer by James Newsom, who rented a large building on Fort Place owned by Robert Hunt; Newsom drew up a proposal outlining terms for the committee to overtake his rental of £50/year, which was readily accepted. The property was ideal for the institution, situated amongst a stretch of houses along the top of The Grange Road with a view of the farmed fields opposite it.⁴⁷ And finally, the committee accepted Joseph Watson's offer to serve as teacher and as superintendent for the "reception and instruction of those born deaf and dumb."⁴⁸ He would be paid an annual allowance of £21 10s. for each child, covering their education, board, washing, and supplies; Watson's fees from private students, however, would make up most of his income.⁴⁹ By 1794, Robert Nichollos would join as Watson's assistant at a salary of £30/year. Townsend and Mason additionally sent a notice to *The Gentleman's Magazine* stating that 250 subscribers had already signed on, and "All that we request is that this charity may be ranked among the rest as useful and important, and be allowed to have an equal claim to the patronage of a general public." The notice also appended a list of the most prominent donations to demonstrate to the public the value of the charity, including from Samuel Whitbread (£21), Henry Thornton (£21), Earl of Darmouth (£10 10s.), Mr. James Neal (£10 19s.); Thornton and Sir James Sanderson & CO., Southwark banking houses, were also listed as annual subscribers.⁵⁰

⁴⁷ Lee and Hay, *Bermondsey 1792*, 27.

⁴⁸ Edmund T. Clark, *Bermondsey: Its Historic Memories and Associations* (London: E. Stock, 1901), 218.

⁴⁹ Townesend, *John Townsend*, 33.

⁵⁰ *Gentleman's Magazine* 62.2 (Sept. 1792), 804.

Nourished by the “blessing of Providence and the patronage of the whole committee,” the Asylum for the Support and Education of the Deaf and Dumb Children of the Poor was founded, five months after Townsend’s conversation with Mrs. Creasy.⁵¹ The committee decided admission to the school would be selected through a public selection process voted by the Board of Governors, and would be strictly reserved for candidates between nine to fourteen years of age—except in cases of very extraordinary application—of “sound mind,” and on the basis of their biographical sketch, particularly their family’s poverty-ridden circumstances. In other words, only those “deserving of charity” were considered to be fit candidates under the guidelines of the charity.⁵² In addition, medical practitioners examined candidates to verify their deafness to avoid fraudulent applications and determine whether they were intelligent enough to receive an education. On 14 November 1792, the first election took place. Four poor deaf and dumb children were admitted, and two more selected shortly after: William Fuller (11 years), Anne Westbrook (11 years), Sarah Pounceby (14 years), John Denford (9 years), John Tomkins Brassett (11 years), and Anne Weaver Cottress (10 years) were the Asylum’s first pupils; Cottress was also the Asylum’s first orphan.⁵³ At each yearly half-election, the Governors accepted a few more children. Yet, the number of children waiting to be admitted increased yearly, though no child could be chosen for selection without first being elected by a contributor. Admission was free, although in some circumstances where a child’s parents were not in impoverished circumstances, the committee allowed admission based on a sum—e.g. fifteen guineas per annum. By 1844, pay

⁵¹ *Gentleman’s Magazine* 96.1 (March 1826): 278-280; 279.

⁵² *Plan of the Asylum, for the Support and Education of the Deaf & Dumb Children of the Poor* (London: Printed for J.B Courthope, 1797), 9.

⁵³ *Memoirs of the Rev. John Townsend*, 39. Names of children from Lee and Hay, *Bermondsey* 1792, 34.

pupils were charged £20 and indigent or parish pupils £10 per annum.⁵⁴ The term of each pupil's stay was five years, during which they were clothed and maintained by the charity, instructed in working trades, and some were even provided apprentice fees.⁵⁵

As characteristic of other late eighteenth century charitable institutions founded on private benevolence and public subscription, the Bermondsey Asylum expanded its request for subscriptions by emphasizing a three-fold goal of religious instruction, intellectual development, and material well-being.⁵⁶ Townsend asserted that the Asylum was designed solely to provide religious instruction and "the groundwork of an average fair education," which incorporated reading and writing with speech training. As stipulated in the Asylum's promotion pamphlet and list of subscribers, the goals of the institution were to:

render [pupils], according to their various capacities, conversable and intelligent, able to receive and express ideas; to furnish them with moral and religious information; and to lay open to them, in considerable degree, the sources of intellectual enjoyment, common to rational and cultivated minds; by teaching them to understand the power and use of language; *not a language of signs* peculiar to themselves; but the *common language* of the country to which they belong, and which is spoken and written by those around them (original emphasis).⁵⁷

This agenda attempted to elevate the deaf "from a dark and dreary state of ignorance" and place them into active participation and employment in society by emphasizing the importance of the

⁵⁴ William Chapin, *Report on the Benevolent Institutions of Great Britain and Paris* (Columbus; C. Scott & Co., Printers, 1846), 46.

⁵⁵ "The Old Kent Road," *Old and New London* 6 (1878): 248-255.

⁵⁶ William Gilbert, "Deaf and Dumb Asylum," *Good Words* 14 (1873), 253.

⁵⁷ *Plan of the Asylum for the Support and Education of the Deaf and Dumb Children of the Poor, Including purposes of instruction; rules of the society; and list of the officers and governors* (Shackwell: Printed by T. Rutt, 1807), 5.

children's duties towards God and man.⁵⁸ A connection with religion and charity was not lost among the public who were becoming sympathetically aware of the plight of the deaf and dumb. As Kenneth Hodgson points out, this sympathy was tied to the "realization that something could be done to relieve [the children's] misery. The knowledge that something could be done was leading to some public demand that it should be done."⁵⁹ The *Times*, for instance, remarked that through the generosity of the charity, deaf-mute children are "raised from the low condition of mere automata to that of intellectual beings, capable of holding intercourse with their fellow rationales and of forming suitable notions of their duty and expectations as reasonable creatures and Christians."⁶⁰ This idea clearly resonated to the community of Bermondsey, as in a 1796 General Meeting, the Earl of Darmouth and over 300 gentlemen were present.⁶¹ Attendance still remained high, as in another meeting in 1809, over 300 gentlemen were gathered at the City of London Tavern.⁶²

The idea that deaf-mutes were being "raised" was a reflection of the Protestant culture that governed their well-being. Since the deaf were largely constructed as "helpless," the benevolent and charitable minds of society, guided by the encouragement of Townsend, Mason, and other members of the committee, were told that it was their divine right and duty to extend sympathy for their "social inferiors."⁶³ This message was particularly resonant within the walls of churches

⁵⁸ *Plan of the Asylum* (1807), 6.

⁵⁹ Hodgson, *The Deaf and Their Problems*, 156.

⁶⁰ *The Times* 10 May 1799, quoted in Mary Carpenter, *Health, Medicine, and Society in Victorian Britain* (Santa Barbara: ABC-CLIO, Inc., 2010), 108.

⁶¹ *A Short History of the School* (Margate: Printed by Students at Royal School for Deaf Children, Margate, 1938).

⁶² *Caledonian Mercury* (Thursday 12 October 1809).

⁶³ This ideology is referred by historians of deaf studies as "historical paternalism." See, for instance: Phyllis Valentine, "Thomas Hopkins Gallaudet: Benevolent Paternalism and the Origins of the American Asylum,"

around Bermondsey. For instance, the Reverend Thomas Beck's poem, *The Cause of the Dumb Pleaded*, drew attention to both Townsend's claim for educating the poor deaf and dumb, and the social distinction between the "world of hearing" and the "world of the deaf:"

Like you, he views the busy tribes around,
Like you, he hastes where crowds admiring throng;
But lost to him the choir's enliv'ning sound,
And dumb to him the statesman's fluent tongue

The peopled world he sees on ev'ry side,
And pants to shew and share a friend's esteem,
But social pleasures are to him deny'd
And all the world are deaf and dumb to him.⁶⁴

This emotional plea stressed the importance of morally uplifting the deaf from his isolation and allowing him to "converse with his God," which could only be provided by restoring speech to the deaf and dumb. The poem was printed by the charity to further carry out their message and raise subscriptions.

Since the Asylum relied on subscriptions, Townsend and Mason preached a number of charity sermons addressed towards raising funds for the institution. Appealing to the Christian duty of charity and benevolence, the sermons highlighted the necessity of reaching out and providing a helping hand to the destitute, while also advocating the importance of education for children. The sermons particularly highlighted the extent of the "malady" till then almost unknown: "In some families the whole number of children were deaf and dumb, in others *half* were thus afflicted; cases were numerous of five out of six, and it was ascertained that in twenty

in *Deaf History Unveiled: Interpretations from the New Scholarship*, ed. John V. Van Cleve (Washington, D.C. Gallaudet University Press, 1993), 53-73.

⁶⁴ Thomas Beck, *A Cause of the Dumb Pleaded* (London: Acutts & Keeble, 1792), stanza xvi-xx.

families, containing one hundred and fifty-five children, there were no fewer than seventy-eight deaf and dumb.”⁶⁵ Concerns about the extent of the “malady” were reflected in the increase in subscriptions; education that could provide deaf children some semblance of a “normal” life that would allow them to gain employment and fend for themselves was viewed as a vital and necessary cure.

EXPANSION TO OLD KENT ROAD

By 1804, the charity was “no longer *struggling* into notice,” as legacies, private contributions, subscriptions, and the patronage of the Duke of Gloucester and the Marquess of Buckingham transformed the institution into a national charity.⁶⁶ Expansions had already begun at the turn of the century: a trade training center with four rooms for instructing tailoring and shoemaking for the boys, and a stay-making and shoe-binding for girls, was added in 1800. Two rooms were purchased in Bermondsey Square, just across from Grange Road, to accommodate sick children. With the continuous additions to the Grange Road location and the overwhelming number of applications and pleas arriving daily, the Committee decided to purchase land for the building of a new institution large enough to house 150 pupils as compared to the 48 on Grange Road. The Duke of Gloucester donated £1800 for the purchase of a freehold slot on Old Kent Road. The land had footage of 150ft and a depth of 750ft., residing across Rope Walk, alongside a line of houses on Swan Place. The location was in the middle of Saint George Parish, overlooking vast fields of grass and surrounded by residential dwellings, Bricklayers avenue, and the St. George Burial Ground.

⁶⁵ *Memoirs of the Rev. John Townsend*, 39.

⁶⁶ *Memoirs of the Rev. John Townsend*, 42.

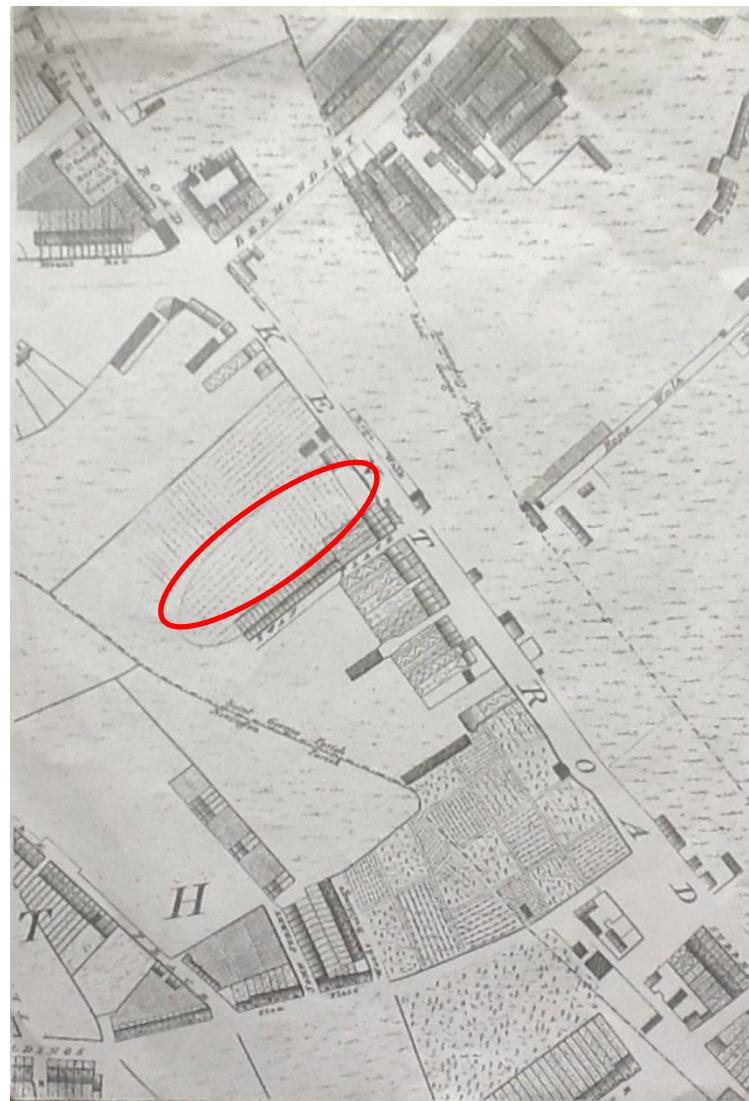


Image 2: Richard Horwood's Map, 1792-99 showing the location of land purchased for the building of a new Asylum for the Deaf & Dumb, Old Kent Road (circled). Local Studies Archives, Southwark.

In February 1804, Mason died from a ruptured blood vessel. His work with Townsend would be immortalized on 11 July 1807, as the Duke of Gloucester laid the first stone to what would be new London Asylum, bearing Mason and Townsend's names as founders of the charity. Construction began in 1809 and was completed in 1810 at a total cost of £21,000 for building and

furnishing.⁶⁷ The old school at Grange Road was still used for the charity, converted into a workhouse for training deaf children in shoe-making, tailoring, printing, book-binding, and other trades.⁶⁸ As Sub-Treasurer, Townsend continued working, earnestly collecting subscriptions to fund the construction for what he referred as his “darling child.”⁶⁹ During the summers of 1807 and 1808, he travelled around England—Bristol, then west to Fareham, Southampton, Rumsey, Exeter—and writing in his diary the experiences of his journey. One night, for instance, he wrote: “On entering upon this journey for the deaf and dumb, I determined to make them subservient to the edification and salvation of those, who might be attracted to hear by the novelty of the subject...as Christ compassioned our miserable condition, we ought to sympathise with, and help those who were in the unfortunate and distressing circumstances of the children for whom I was appointed to plead.”⁷⁰ His tireless efforts did manage to attract notable donations as well as increase the subscriptions of those who already pledged their support; the Earl of Cork, for instance, became a “steady friend to the Institution,” and stubborn Edward Jenner (1749-1823) was encouraged to part with two guineas.⁷¹

Townsend would eventually travel a total of 4300 miles, preach 120 sermons, and raise £3,122 4.s 8d. from congregational collections and another £4000 from exclusive subscriptions for the new building fund.⁷² His journeys were at times wearisome. In an 1810 letter, Townsend expresses his struggles in maintaining a balance between his devotion to the project and his duties to his Church:

⁶⁷ Jackson, *Britain's Deaf Heritage*, 38.

⁶⁸ “Extracts from the History of the Old Kent Road School.” Manuscript, Local Studies Archives, Southwark.

⁶⁹ *Memoirs of the Rev. John Townsend*, 45.

⁷⁰ *Ibid.*, 46.

⁷¹ *Ibid.*, 191.

⁷² *A Historical Sketch of the Purposes, Progress, and Present State, of the Asylum for the Support and Education of Indigent Deaf and Dumb Children* (London: Printed by James Powell, March 1831).

I cannot have a collection for the Deaf and Dumb at the chapel, as a heavy debt remains unpaid, but have circulated a large number of bills and letters; in my last text, which was 'Zealous of good works,' supplied me with materials, towards the close of the sermon, to touch on the subject, and this has already operated to produce some fruits.⁷³

His efforts were not in vain, however. When construction of the new building was completed in 1810, it became the largest institution devoted for the education and care of deaf-mutes in the world. The elegant three-story building faced a row of houses on the north side of Old Kent Road that replaced the vast fields of grass. The name of the institution was prominently engraved and displayed at the front exterior of the building. The back of the property was large enough for children to play and participate in sports activities, as well as for annual celebrations held to raise funds for the charity. By 1819, the streets adjacent to the institution would be renamed "Mason Street" on the west of the building, and "Townsend Street" on the east. With 150 pupils originally housed, the building eventually expanded through the nineteenth century to receive 180, and then 219 pupils (the costs of enlargement in 1819 was £3097), with 4 hearing and 8 deaf teachers employed—including William Hunter (1785-1861), the Asylum's first deaf teacher who was a former pupil and who was privately trained by John Creasey in June 1804.⁷⁴ The old school on Grange Road was closed down and sold after seeing losses of upwards of £4000 since 1810.⁷⁵ The charity provided children with board, lodging, and washing; boys were instructed in "useful branches of trade" such as tailoring and shoemaking, whereas girls were instructed in housework and needlework.⁷⁶ By 1846, it was reported there were 290 pupils—160 males and 160 females—with a growing list of children waiting for admission.

⁷³ Quoted in *Memoirs of the Rev. John Townsend*, 190.

⁷⁴ Jackson, *Britain's Deaf Heritage*, 39.

⁷⁵ "Extracts from the History of the Old Kent Rd. School."

⁷⁶ Hawker, *History of the Asylum*, 15.



Image 3: Richard Horwood's Map, 1809 showing the new Asylum for the Deaf & Dumb on Old Kent Road. Local Studies Archives, Southwark

Pupils were housed in two school rooms and were overseen by Watson and a few assistants. Teachers for the deaf—especially deaf teachers—were difficult to come by and were often poached from other positions of employment or discovered in unlikely situations. The Committee, for instance, paid £19 10s. to buy out the contract of a teacher called up for the militia, and proved the deafness of another who was seized by a gang, in order to secure his release,

possibly from jail.⁷⁷ Unlike Braidwood's Academy, the London Asylum did not keep its methods of instruction a secret. Although Watson was a member of the Braidwood clan and thus bound by secrecy from revealing the Braidwood method, following Thomas Braidwood's death in 1806 from alcoholism, Watson published *Instructions for the Deaf and Dumb* in 1809. The treatise provides detailed instruction of Watson's teaching methods, composed largely of articulation incorporated from the Braidwood method, what is now known as the "combined method." The focus of instruction at the Asylum was always on speech-training and communication, even if added with signs, as evident in the 1844 Annual Report:

The branches of education taught, are reading, writing, the proper method of expressing their thoughts in written or spoken language, arithmetic, and a knowledge of the Scripture. *They are also taught to understand oral language, through the medium of their own natural language of signs.* The power of articulation also affords, to many of them, a ready medium of communication with those who can hear; but this advantage must always depend upon the pupil having a clear enunciation (my emphasis).⁷⁸

Although Watson insisted all pupils should be instructed to articulate, yearly reports revealed only a portion of pupils actually received any benefit from the instruction.⁷⁹ As historians have contended, Watson actually employed a form of "combined method"—relying on the children's natural language of signs in order to convey understanding for speech; he often defended his method by pointing out his pupils would be employed in factories after their education at the Asylum, and that vocational training was vital to ensure employment.⁸⁰

⁷⁷ Townesend, *John Townsend*, 66.

⁷⁸ Quoted in Chapin, *Report on the Benevolent Institutions*, 44.

⁷⁹ Chapin, *Report on the Benevolent Institutions*, 45.

⁸⁰ Rée, *I See a Voice*, 196-197; Susan Burch, "Reading Between the Signs: Defending Deaf Culture in Early Twentieth Century America," in Paul K. Longmore and Laur Umanski (Eds), *The New Disability History" American Perspectives* (New York & London: New York University Press, 2001), 214-235; 229.

The Asylum had a steady stream of revenue to maintain the charity. The superintendent of the Ohio State Institution for the Blind, William Chapin (b.1804), for instance, examined all the charities in England in 1845 to compile a report on the state of charitable institutions. His report revealed that the London Asylum's funds for 1845 totalled to £8519, with £2321 from annual subscriptions, £2280 from life subscriptions and legacies, and the rest carried forward.⁸¹ Nevertheless, residential schools were very expensive to maintain, and as Amanda Borgen points out, charities often used publicity to draw in pupils throughout the country as well as raise awareness for subscriptions. Various methods of public staging were used, particularly on anniversaries: flag days, fetes, bazaars, charity sermons, lantern shows, public lectures, and musical entertainment.⁸² Anniversaries also served another vital purpose: to demonstrate the successes of the Asylum's pupils in grasping the ability to read, write, and speak. The display of these deaf children speaking and communicating was nothing short of miraculous. For instance, when Queen Charlotte and Princess Elizabeth visited the Asylum in 1816, they contributed fifty and twenty guineas respectively, the Queen expressing to Townsend that "it must be a great satisfaction to you to see so many children so happy."⁸³ By 1818, the Asylum received more royal visits from the Duchess of Kent, the princess Tudor, and the Prince Charles.

⁸¹ Chapin, *Report on the Benevolent Institutions*, 46.

⁸² Borgen, "The Public Examination," 151.

⁸³ Quoted in *A Short History of the School*, printed by children at the Royal School for Deaf Children, Margate (1938). UCL/RNID Library Archives, Margate Box 1.



Image 4: Engraving of the London Asylum for the Deaf and Dumb on Old Kent Road, 1816. Drawn and engraved by I.C. Varrall for "Walks through London" and published by W.Clark, New Bond Street, 1 November 1816. Local Studies Archives, Southwark.

To demonstrate the validity of the Asylum, especially to subscribers who wanted to ensure their donation was being well-spent, the Asylum was open to inspection daily except on Sundays. Visitors could see children in all “progressive styles” of mental improvement from the “dull state of silent ignorance” to being communicative and responsive with language.⁸⁴ These open houses not only ensured to the public that the institution was a worthwhile charity, but it appealed to their sense of wonder in observing the marvels of how far human rationality could progress with

⁸⁴ *A Historical Sketch*, ix.

education. The people of Bermondsey and the surrounding parishes were already familiar with the woes of the deaf and dumb, as numerous sermons preaching Christian benevolence were held to aid the building of the institution and to raise subscriptions since 1792. Yet to actually see the children—exhibiting their reading skills, the strokes of their penmanship, their proficiency in arithmetic, and their workmanship as tailors and shoemakers—was a different story. It confirmed the image of the deaf and dumb as requiring benevolence in order to survive in a harsh hearing world, reaffirming the doctrine of charity that was continuously preached in pulpits—especially if children from the Asylum recited the Lord’s Prayer, “with a distinctness of articulation sufficient to render [themselves] well understood.”⁸⁵

Displays of deaf children were common for showcasing the skills of the teachers as well as the value of the institution in educating literacy, numeracy, biblical, and general knowledge. The scholastic achievements of deaf pupils were a vital drawing card that provided the public with a sense of “miracles” and the success of education. Moreover, they demonstrated how ideals of progress were necessary for improving the state of the poor in society. These demonstrations, or “examinations” were generally accompanied by some explanation of special techniques and methods of teaching, and sometimes fees were charged or collections passed during the course of proceedings.⁸⁶ As Anne Borsay explains, instead of being philosophical in questioning the links between language, deafness, and rationality—as was the case in eighteenth-century Paris—these demonstrations were for the benefit of the upper and middle classes who required forms of

⁸⁵ *Kentish Gazette*, Friday 5 July 1811. The Sermon was preached at Chatham Church by Rev. Dr. Law, the Archdeacon of Rochester Cathedral, to raise funds for the Asylum. A student educated at the Asylum recited the prayer after the sermon, raising £65.

⁸⁶ As Borgen points out, it’s important to highlight the word “examination,” for it “suggests not only a testing of a pupil’s ability but also a physical and medical inspection of his condition.” Borgen, “The Public Examination,” 149.

entertainment before pledging their supports.⁸⁷ But they were more than just mere entertainment. Public demonstrations of deaf children were a complex phenomenon that was used to provide subscribers as a means for assessing the progress of children and the merits of their financial investments.⁸⁸ They were, in other words, a way to maintain the paternalistic image of deafness. Without such support, the poor deaf would be unable to achieve the remarkable level of education that they were privileged to have at the Asylum.

The presence of subscribers at general meetings of the institution or at the Asylum's demonstrations was also "a means of reaffirming their commitment to a worthwhile cause."⁸⁹ Notices of General Meetings were published in newspapers and circulars announcing resolutions made in the meetings, especially the selections of children into the Asylum, urging the public to part with their funds and aid the institution. The *Morning Post*, for instance, narrated a meeting of Governors and subscribers at the London Tavern, upon which after some "loyal toasts and sentiments from the Chair," H.C. Combe, Esq., and M.P., a procession of between forty and fifty children advanced slowly around the Tavern, exhibiting "pleasing specimens" of their skills. On articulation, the *Post* noted:

Their knowledge of language was evinced by the pertinent and rational answers they made to questions put to them, and their attainment of speech was demonstrated by several of them clearly, feelingly, and audibly pronouncing some appropriate lines addressed to their benefactors, whose gratification may be easier conceived than described, In short, the whole was one of the most affecting spectacles that can well be imagined and highly honourable to the voluntary benevolence of the British nation.⁹⁰

⁸⁷ Borsay, "Deaf Children and Charitable Education," in Anne Borsay and Peter Shapley (Eds.), *Medicine, Charity, and Mutual Aid: The Consumption of Health and Welfare in Britain, c.1550-1950* (Aldershot: Ashgate Publishing, 2007), 71-90.

⁸⁸ Borgen, "The Public Examination," 150.

⁸⁹ Borgen, "The Public Examination," 156.

⁹⁰ "Asylum for the Deaf and Dumb," *Morning Post* (Saturday 5 May 1804).

This was a powerful image of deafness that transcended charity and education, being placed in the very heart of national responsibility, a point repeatedly stressed in the Asylum's early annual reports: "to render those *useful* who otherwise would be a burden to society, is an undertaking worthy of the BRITISH CHARACTER."⁹¹ Another report of the Asylum's anniversary festivities echoed similar sentiments:

Having witnessed the rise and progress of this more than commonly interesting institution, it is impossible to avoid remarking with pride, as Britons do, and the most heartfelt satisfaction as lovers of our species, and as Christians, the gradually increasing support which it receives...The too long neglected Deaf and Dumb now reckon among their friends and patrons some of the most exalted and enlightened characters in the nation.⁹²

Continuous reports of the Asylum's success also meant the amount of letters destitute parents sent to governors pressing solicitations for admission of their deaf and dumb children increased, some of which were "very emotional and distressing."⁹³ Life Governors, depending on the amount they contributed, were able to hold votes at General Meetings to elect applications for admissions; 10 guineas usually entitled one vote. One such application was printed in the *Leeds Intelligencer* on 16 December 1811, on behalf of ten year old William Thompson, son of a poor shoemaker in Leeds. The Thompson family had seven children, two of whom were deaf and dumb, and thus pleaded with the Governors to kindly bestow upon William admission into the Asylum at the next election in January 1812.⁹⁴

⁹¹ *Plan of the Asylum*, (1797), 4.

⁹² *Morning Chronicle* (Wednesday 4 May 1808).

⁹³ *A Historical Sketch*, vii.

⁹⁴ *Leeds Intelligencer* (Monday 16 December 1811).

By 1828, almost a dozen towns and cities established their own educational institution for the deaf.⁹⁵ The proliferation of charities for the deaf meant that these institutions were increasingly competing for funds, since their livelihood relied on an economy of fees and subscriptions. These schools implemented various marketing strategies, including opening themselves for public inspection, publishing biographical sketches of the children, and parading star pupils to benefactors to demonstrate their proficiency.⁹⁶ Borsay further explains that within the pedagogical and institutional regimen of deaf education, pupils were marketable products and merchandise used for generating more funds from benefactors.⁹⁷ Annual Reports in particular, maintained the charitable image of the institution, drawing public attention to the generosity of the subscriber as well as revealing the extent of the charitably-minded populations in the nation. The paternalistic image of the deaf and dumb as requiring benevolence held sway through the nineteenth century.

The London Asylum thus played a significant role in constructing a social and cultural image of deafness as one dependent on the sympathy and goodwill of hearing benefactors. More so, it emphasized the importance of deaf education to the English public, proving that deaf-mutes could be educated as long as a charity was willing to support them. As the years passed, the

⁹⁵ Deaf and Dumb Institution, Canongate, Edinburgh (1810); General Institute for Deaf and Dumb Children in Edgbaston, Birmingham (1812); Glasgow Society for Education of the Deaf and Dumb (1819); Aberdeen Institution for the Deaf and Dumb (1819); Manchester Institution for the Deaf and Dumb (1825); Liverpool Institution for the Deaf and Dumb (1825); West of England Institution for the Deaf and Dumb, Exeter (1827); Yorkshire Institution for the Deaf and Dumb, Doncaster (1829).

⁹⁶ Borsay and Shapley, "Introduction," 5.

⁹⁷ Borsay, "The Public Examination," 72.

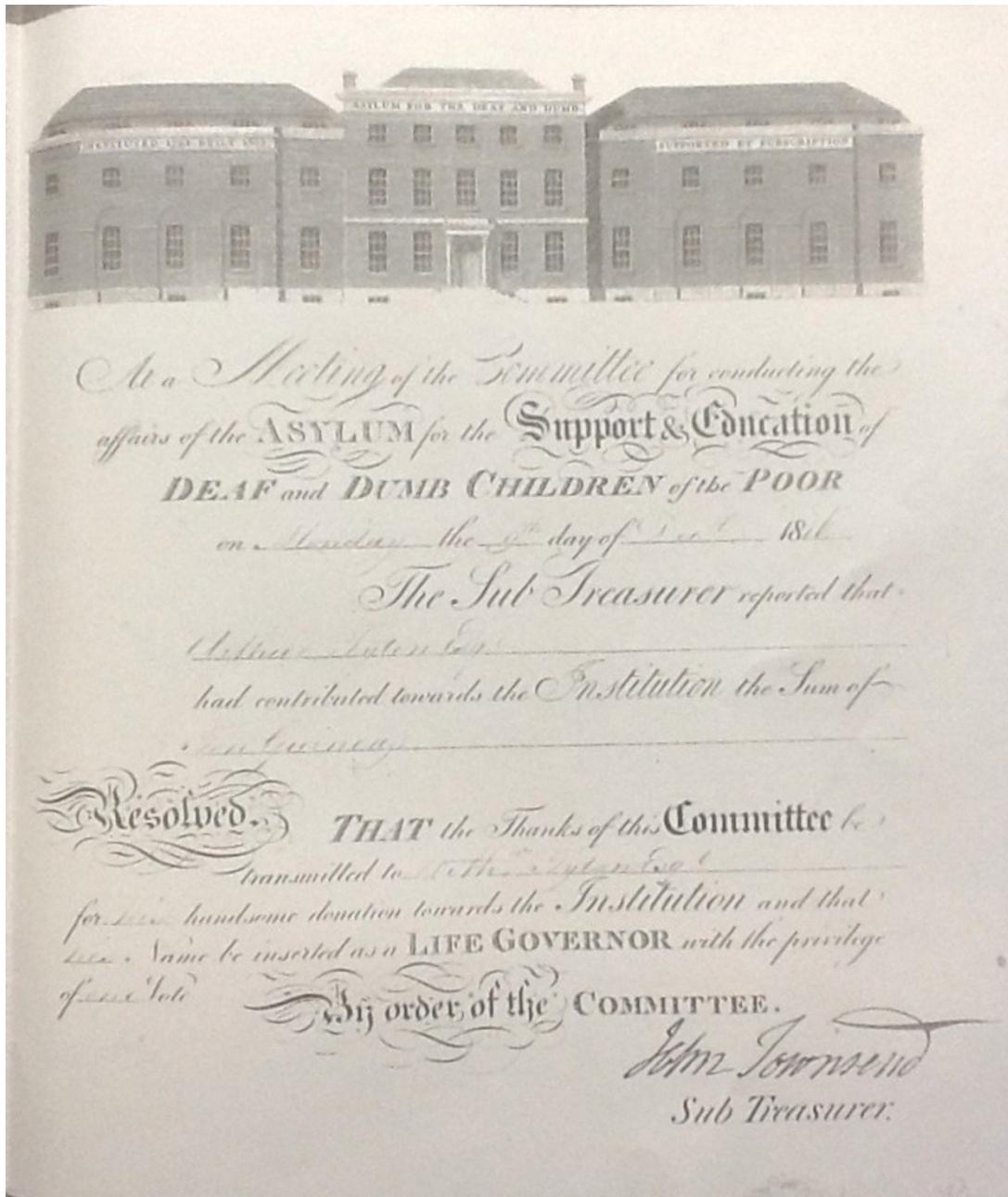


Image 5: Example of Certificate for Life Governor, 1816. Local Studies Archives, Southwark

"At a Meeting of the Committee for conducting the affairs of the ASYLUM for the Support & Education of DEAF and DUMB CHILDREN of the POOR on Monday the 9th day of Dec. 1816 The Sub-Treasurer reported that Arthur Tyton Esq. had contributed towards the Institution the sum of Ten Guineas. Resolved. THAT the Thanks of this Committee be transmitted to Arthur Tyton Esq. for his handsome donation towards the Institution and that his name be inserted as a LIFE GOVERNOR with the privilege of one Vote. By order of the COMMITTEE. John Townsend. Sub Treasurer."

Asylum's notable reputation brought countless of applications from parents pleading admission for their children. By the mid-nineteenth century, the increase in applications led to more children being admitted, and thus to overcrowding and a decline in institutional conditions. For instance, Richard Elliot, who started teaching at the Asylum in 1844, described how he was appalled by

the herding of unwanted masses of the poorest deaf children into overcrowded classrooms and dormitories, dressed in anonymous uniforms, drilled by a military pensioner, with very few outings or visitors, no sports, no recreation for the girls and no proper training...in seven years no child had been outside the school building...Those never left the Asylums and some were trapped for life.⁹⁸

Those thought to be "deficient in intelligent" were not considered fit for the charity and thus sent to workhouses or mental hospitals.⁹⁹ Yet the Governors and supporters of the Asylum still maintained that articulation and training was the best means to elevate the deaf from their miserable state in society and enable them to have a "normal" life as functioning citizens in a hearing society.

Was there blame to be assigned for the children's suffering in Asylum in the mid-nineteenth century? The aurists John Harrison Curtis and William Wright certainly thought so. During the 1810s, both men wrote to the Committee of Governors, explaining that institutional conditions at the Asylum could be drastically improved only if children were given thorough inspections by an aurist, to determine the degree of their deafness. They argued that medical practitioners lacking specialized skills in aural surgery were insufficient for ascertaining between curable and incurable types of deafness, adding that deafness could, and should, be cured

⁹⁸ Quoted in McLoughlin, *A History of the Education of the Deaf*, 7.

⁹⁹ McLoughlin, *A History of the Education of the Deaf*, 7.

medically. Further, they added since the goals of aural surgery were complimentary to that of the Asylum's tenets, it was the responsibility of the Governing Committee to put aside financial interests and consider what was best for the children. In short, Curtis and Wright argued that deafness did not have to be confined within the gates of the Asylum.

ROLE OF MEDICAL PRACTITIONERS WITHIN THE ASYLUM

From the onset of the charity's establishment, the Governors declared that medicine or surgery would have no place within the gates of the Asylum. The 1797 *Plan of the Asylum*, a promotional pamphlet distributed to subscribers, exemplified this proclamation:

It is no part of the design of this Institution to attempt to remove the defects in the organs, either of Hearing or Speech, by Medical assistance.—This, it is presumed, has already been exerted without success: but it is their intention to mitigate their affliction, and, as much as possible, afflict their defects, through the medium of *this science*; and though it is impossible to restore them *fully* to the exercise of speech (and not to hearing in any degree) yet the deficiency has been so far supplied, that most of the ideas which they endeavour to express, may be understood by those to whom they are conveyed.¹⁰⁰

It's not surprising that the Governors took such a stance against medical intervention. Medical "cures" during this period were varied. Bloodletting, laudanum, mercury, animal urine, various types of ointments grounded with herbs, oil of earthworm, fat of eel, wood lice, ant's eggs, fat of cow's feet, cast skin of serpent boiled in wine, fat of fox's lungs, yolk of eggs, and goose or duck or hen's grease were notable household remedies for restoring hearing. Warm buns were also applied to the external ears in the hopes the steam would open up any clogged passages. Then

¹⁰⁰ *Plan of the Asylum* (1797), 5-6.

there were the more drastic treatments: burning caustics, blisters applied behind the ear to purge out toxics, setons on the neck, hammering of the skulls, or even insertion of forceps into narrow aural passages that further damaged the structure of the ear. None of these cures were painless or certain in its promise to cure deafness.

The goal of the Institution, as the pamphlet made abundantly clear, was *not* to “remove defects,” but to instruct deaf pupils. Instruction was an “encouraging omen of the good which [the] design [of the Asylum] is likely to accomplish” in affixing pupils as functioning and happy citizens of society.¹⁰¹ The exercise of speech was one avenue for removing the deaf from isolation, and as the above proclamation asserted, impossible to restore through medical intervention. The social purpose of the charity and its educators extended its principles towards employment as well.¹⁰² Not only were medical practitioners forbidden from experimenting with “removing defects,” but no physician, apothecary, or surgeon was employed by the charity in the 1790s or served as consulting practitioners, as was the case in other charitable institutions. Sick pupils were taken care of by housekeepers who doubled as nurses. “Care,” rather than “cure” was preferred at the Asylum.

The statement against medical intervention, however, was never officially made into a rule. Nor is the statement repeated in the 1807 *Plan of the Asylum* pamphlet, raising questions about the objective of the Governors in drafting that statement. Jules Paul Seigel notes that the British focus on a missionary need to “save souls” led to an “overwhelming devotion to religious zealotry, political conservatism, and a stereotypical social philosophy” that outweighed the medical

¹⁰¹ *Plan of the Asylum* (1797), 6.

¹⁰² Hodgson, *The Deaf and their Problems*, 155.

appropriation of the deaf.¹⁰³ The Governors adhered to the charitable nature of the Asylum not only to protect its pupils against unnecessary medical intervention, but also to protect its subscriptions. Since the charity was dependent upon the voluntary donations of subscribers, any fundamental alterations to its mission, or any rules being repealed, altered, or added, could not be established until first discussed at the General Meeting of Subscribers. No rule could pass without the subscribers' votes, which suggests that perhaps subscribers did not see the necessity of such a rule against medical intervention, or that no such rule was ever proposed—perhaps a reflection of the unsuccessful claims of medical practitioners during this time to have “cured” deafness. Such a rule, however, would have outlined the construction of deafness as an auditory limitation, which would have been contrary to the Asylum’s approach of deafness as a social and charitable issue.

The Asylum’s stance against all forms of medical intervention would become flexible during the early nineteenth century. Fever, smallpox and bouts of cholera and typhus were common in the cramped and crowded clusters of Whitechapel and Bermondsey. Given the contagious nature of smallpox, the success rates of inoculation and the foundation of the Jennerian Institution in 1803, the Governors amended the Asylum’s rules on medical intervention. Rule XIX in the 1807 *Plan of the Asylum* stated “No Child shall be admitted into the Asylum unless he or she shall have had the small pox, or have been inoculated with the vaccine” by a medical practitioner. The Rule further outlined that two housekeepers would be assigned to aid a sick child and that the child was to be given proper clothing before continuing his or her education.¹⁰⁴

In addition, the introduction of Rule XIX led the Asylum to employ William Babington (1756-1833) as the Asylum’s first consulting physician. Babington was familiar with the area of

¹⁰³ Jules Paul Seigel, “The Enlightenment and the Evolution of a Language of Signs in France and England,” *Journal of the History of Ideas* 30 (1969): 69.

¹⁰⁴ *Plan of the Asylum* (1807).

Bermondsey, having attended lectures at the nearby Guy's Hospital. He qualified as an apothecary and lectured on chemistry at the Hospital, later resigning to attend the University of Aberdeen where he received his medical degree in 1795. In 1802, Babington returned to Guy's, eventually elevating to the position of full physician. He was thus a well-known and well-respected practitioner in Bermondsey, who donated ten guineas to be honoured as a Life Governor. The apothecary Mr. Richard Jordan was also employed by the Asylum, likely to dispense the prescriptions compiled by Babington. The appointments of Babington and Jordan, however, were strictly confined to the general health of the children, likely to ensure no contagious disease was present, and to inoculate against smallpox if discovered.¹⁰⁵

MINUTE MEDICAL EXAMINATIONS

The Asylum's stance against medical intervention was difficult for some medical practitioners who attempted to access diseased ears in order to enhance their understanding of aural diseases and the nature of deafness. It was commonly accepted by early nineteenth century practitioners that deafness was a difficult ailment to treat, let alone cure. In many instances, sudden deafness (i.e. not from birth) was often attributed to illness, accidents, or old age; however, some aurists claimed that deafness could be cured if treated at an early age. They explained if a child remained deaf by age 10—the age when many children were sent to apprentice or to colleges if a family could afford it—then they would become deafened for the remainder of their life if no proper medical care was sought.

¹⁰⁵ Beaver, *A Tower of Strength*, 39.

John Harrison Curtis was particularly vocal in asserting the importance of early treatment for deafness. His work emphasized it was the responsibility of the aurist to embrace charitable benevolence by linking aural surgery with social reform. For instance, in outlining the struggles of the deaf in communicating and integrating with hearing society, Curtis expressed:

the ear being neglected, dumbness ensues to deafness,—the miserable sufferer is looked upon as one condemned, and is shut out from the sympathies of his fellow-creatures and doomed to perpetual silence and hopeless despair. It is painful to think how many of these unfortunates have been sacrificed to indolence and prejudice, in whose judicious timely aid might have developed those facilities with which nature originally endowed them, but which (being temporarily suspended by disease), they have, thorough neglect, been deprived; and thus the divine gift of speech has been for ever denied them.¹⁰⁶

The temporary nature of deafness is clearly expressed in this statement. To Curtis, deafness was a curable affliction, one that with proper inspection by a trained and competent aurist, could remove the deaf from “perpetual silence and hopeless despair.” The miserable state of the deaf, Curtis continued, owed itself to the prejudice, or “popular prejudice,” as he also conveyed, which posed a significant challenge to aural surgery.

First, the “popular prejudice” constructed an image of deafness as incurable, thus undermined the role of aurists. If deafness was incurable, then what grounds were there for medical practitioners to undertake, let alone validate, aural surgery as a specialty? Moreover, the prejudice could limit understanding of aural diseases, for without investigation, aurists could not enhance their knowledge of the structure and diseases of the ear—and thus, embark on their quintessential quest to find a “cure” for deafness. Secondly, Curtis argued the popular prejudice barred prominent aurists to actively engage in reforming ideas about deafness. The duty of the

¹⁰⁶ Curtis, *A Treatise on the Physiology and Diseases of the Ear*, 161.

aurist, he explained was not just to treat deafness, but to do so out of charitable benevolence in order to improve the lot of the deaf in society, an approach Curtis exemplified through his own career.

In his *Treatise on the Physiology and Diseases of the Ear*, first published in 1816, Curtis described his experiences with the Governing Committee of the London Asylum. Observing a large number of poor children entering the Asylum at its new building on Old Kent Road, Curtis noted many of the children were denied proper medical examinations of their ears, despite the presence of Babington, who was also on the Board of Governors at Curtis' Royal Dispensary for Diseases of the Ear (see Chapter Two). In an 1817 letter written to the Committee of Governors of the Asylum and reprinted in his *Treatise*, Curtis suggested that the popular prejudice actually had a negative effect on the well-being of the Asylum's children: "It is remarkable how very common has been the error of considering a child once deaf always deaf and consequently of abandoning all attempts of relief."¹⁰⁷ Sending a copy of the *Treatise* along with the letter, Curtis noted that the failure of properly examining these children not only provoked an unfounded assumption that they were "totally deaf," but by not subjecting them to any examination or medical treatment even after admission, these children were prevented from discovering if their hearing was in fact, restorable.¹⁰⁸

Beginning by explicitly stating his objective was not to interfere with the present structure of the Asylum or with the "medical establishment," Curtis' letter outlined three recommendations for merging medical treatment with the Asylum's educational policies. First, he argued that deafness required extensive medical attention by an aural specialist, and not by "any practitioner

¹⁰⁷ Curtis, *Treatise*, 161.

¹⁰⁸ John Harrison Curtis, *A Clinical Report of the Royal Dispensary for Diseases of the Ear* (London: T&G Underwood, 1827), 31.

in general practice, however distinguished his abilities or extensive his science."¹⁰⁹ A general practitioner was not trained to distinguish between the various causes of diseases that resulted in deafness, nor was he able to ascertain whether a case of hearing loss was in fact, curable. Moreover, Curtis argued it is difficult for the general practitioner to determine whether the deafness was a result of birth, or due to malformation or causal disease; this difficulty further maintained the uncertainty towards treatment and "confusions" in the disorders of the ear.¹¹⁰ Only an aurist, he claimed, was able to determine the differences among cases, for years of experience and a multitude of cases deemed what was actually possible. The Asylum would surely benefit from "the advantage that would result to the Institution, were an aurist appointed to attend, and minutely examine the particular defect in each child admitted to your establishment; by this means an opportunity would be given of trying such methods as appear best calculated to give relief."¹¹¹ This would not only reduce the numbers of overcrowded pupils, but also relieve the Governors of the painstaking task of choosing suitable candidates amongst an enormous list of candidates presented for admission.

The role of an aurist was the focus of Curtis' second recommendation. He claimed that the present system at the Asylum was "totally inadequate to afford relief to the numerous applicants," as children were chosen and admitted not from amongst the worst cases of deafness, but from a plurality of votes determining their intellect and capabilities for education. For Curtis, the difficulty in selecting suitable candidates for admission could be resolved with proper medical inspection, since a large number of children merely had minor ear ailments that could easily be

¹⁰⁹ Curtis, *Treatise*, xxiii.

¹¹⁰ John Harrison Curtis, *Cases Illustrative of the Treatment of Disease of the Ear, both Local and Constitutional* (London: T&G Underwood, 1822), 31.

¹¹¹ Curtis, *Treatise*, xxiv.

treated. Thus, by having an aurist minutely inspect each child, Curtis asserted such an examination would “demonstrate the necessity of inspection...in order to ascertain the nature of, and to relieve, such imperfections,” thereby reducing the number of children applying for admission. Further, he argued that instead of being admitted and treated as incurably deaf, children would benefit from inspection and diagnosis at an earlier age—as early as infancy—which would provide completely different results and render “useful members of society, who, under the present system, are objects of commiseration as long as they live.”¹¹² They would no longer be “burdensome to the charity.”¹¹³ The Asylum’s rules for only accepting eligible children “before nine years of age, nor after fourteen,” when deafness is supposedly “confirmed,” could be better served if “all children suspected of deafness...be submitted to an early inspection by competent persons.”¹¹⁴ And no child, he concluded, should be presented for admission into the Asylum without a certificate of such examination from competent practitioners declaring that every medical means of restoring or improving the hearing has been employed without success.

Finally, inspired by the work at the *Institution Nationale des Sourds-Muets* to combine surgical and medical treatment with symbolic education, Curtis advised the Committee to set aside a part of the Asylum for medical and surgical treatments of deafness overseen by competent aurists.¹¹⁵ As Sophia Rosenfeld points out, the French deaf-mutes provided a symbolic as well as

¹¹² John Harrison Curtis, *Observations on the Preservation of Hearing, and on the Choice, Use, and Abuse of Acoustic Instruments* 11th Edition (London; Henry Renshaw, 1839), 46.

¹¹³ Curtis, *Cases Illustrative*, 37.

¹¹⁴ Curtis, *Observations on the Preservation of Hearing*, 46.

¹¹⁵ Approaches to education with sign-language has been varied through history, as has the terminology. “Symbolic education” was used to refer to education through the use of symbols formed by the hands and fingers. “Methodological” education or “methodological signs” refers to the use of English words translated into signs, as advocated by hearing teachers. The “Manual method” is a late-nineteenth/early twentieth-century reference to a colloquial communal language that was created by the lay deaf using their natural

metaphorical model for the goals of the French Revolution: Abbé de L'Epée's methodological signs were seen by the French as a triumph of not only Enlightenment ideals, but also the goals of the Revolution itself; that is, the creation of a "new man," one who was able to express his rationality and perceive his ideas clearly and distinctly. The deaf in France, in other words, were to be seen in a certain way: not only as symbols of the links between language, culture, and rationality, but also as Enlightenment philosophies realized—granted their liberties and rationality through education, they became full, natural born citizens. This image of the "new man," however, did not extend beyond the work of philosophers. As Anne Quartararo points out, the social image of the deaf in nineteenth-century France was largely negative and reflected the hearing community's perceptions of the deaf as "naïve, childlike, and not competent enough to make economic choices."¹¹⁶ This image asserted that the deaf required special protection and continual guidance in order to become full members of society.

One of the "perils of assimilation" according to Quartararo was that by the 1830s articulated speech, as opposed to methodological signs, became a condition of social acceptance for the deaf.¹¹⁷ This image was in part a reflection of the "optimistic attitude" during the early nineteenth century about the potentiality of curing diseases that were once believed to be incurable.¹¹⁸ Itard, for instance, viewed aural diseases as real entities that could be objectively identified, isolated, and targeted with a cure. Examining Itard's role at the *Institution Nationale des*

language of signs. See: R.A.R. Edwards, *Words Made Flesh: Nineteenth-Century Deaf Education and the Growth of Deaf Culture* (New York: New York University Press, 2012).

¹¹⁶ Anne T. Quartararo, "The Perils of Assimilation in Modern France: The Deaf Community, Social Status, and Educational Opportunity, 1815-1870," *Journal of Social History* 29 (Autumn 1995): 5-23; 6.

¹¹⁷ Quartararo, "The Perils of Assimilation," 18.

¹¹⁸ Anne T. Quartararo, "Treating Illness in the Nineteenth Century: The Work of Doctors Itard and Blanchet and the Medicalization of the French Deaf Population," *Proceedings of the Western Society for French History* 27 (2001): 241-250.

Sourds-Muets, Quartararo explains Itard was not concerned about the perception of the deaf in French society as much as he was hopeful that his investigation into deafness could essentially normalize the deaf for assimilation into hearing society. His encounter with Victor, “the Wild Boy of Aveyron” introduced the prospect of accomplishing education with medical intervention, of curing the “wilderness” out of the young boy. Here, his “ideal of medicine was thus firmly planted in the optimism of the Enlightenment and directly connected to the ideas of Locke and Condillac...There would have to be a new faith in medicine based on humanity’s reasoning ability.”¹¹⁹ Five years of work trying to use speech and signs to educate Victor only brought failure; in 1807, Itard then turned to a different approach for finding a “cure,” upon realizing that some sort of physiological connection existed between deafness and physical ailments such as earaches. Itard’s image of deafness, as outlined in his *Treatise on Maladies of the Ear and Hearing* (1821), constructed deafness as “a disease which produced a particular social condition”—what he called “moral mutilation”—and thus required surgical and medical intervention.¹²⁰

British aural surgery was far different from its French counterparts. While Curtis admitted aural surgery was limited in treatment options, he explained the situation was remediable if aurists were allowed to inspect a variety of ailments and develop greater understanding of the causes and cures for deafness. As exemplified by the success of his Dispensary, Curtis explained deafness was not only curable, but that those suffering from this ailment were fully able to integrate into hearing society as successfully as those trained and educated at the Asylum, but for far less time, money, and energy. Ears should be syringed, ear trumpets supplied, and various remedies tried, for “in my opinion,” Curtis emphasized, “no child should be given up as lost until

¹¹⁹ Quartararo, “Treating Illness in the Nineteenth Century,” 243.

¹²⁰ Quartararo, “Treating Illness in the Nineteenth Century,” 243-245.

every means have been resorted to.”¹²¹ He urged the Committee to support the endeavour of aurists by granting them access to children as patients, concluding “by this plan I conceive many of the objects of your laudable charity might probably be found curable, restored to society, and rendered useful; by which bounds of your humane establishment would be extended, and greater scope given to your highly benevolent views.”¹²²

With a degree of diplomacy, Curtis made it abundantly clear he did not intend to derogate the utility of the Asylum nor its approach to education, but only to have his remarks considered “to render it most extensively beneficial to the community.”¹²³ While I have not been able to access any sources revealing the Committee’s response to Curtis’ letter, it is obvious they denied his requests—though difficult to ascertain what they thought of the proposals, or whether it was debated in a General Meeting. In later years Curtis reflected on his letter: “This letter did not produce the effect intended; but I have no hesitation in saying that the time is approaching, when the truth of this opinion will be acknowledged.”¹²⁴ He ascertained the popular prejudice was to blame, for it not only disparaged the role of the aurist, but also made it difficult for educators to view the opportunities that “would be furnished to medical men for experience, and for ascertaining the best means of administering relief in cases where benefit, or a complete cure, is to be hoped for.”¹²⁵ For educators on the other hand, education was about more than just providing skills necessary for integration; it was to allow the deaf-mute to connect with his fellow men and

¹²¹ Curtis, *Cases Illustrative*, 32.

¹²² Curtis, *Treatise*, xxiv.

¹²³ Curtis, *Cases Illustrative*, 36.

¹²⁴ John Harrison Curtis, “On the Cure of the Deaf and Dumb,” *London Medical Gazette* 30 (September 1842), 981.

¹²⁵ John Harrison Curtis, *An Essay on the Deaf and Dumb; shewing the necessity of medical treatment in early infancy, with observations on congenital deafness* (London: Longman, Rees, Orme, Brown, and Green, 1829), xvii.

be able to accept and understand his religious duty to God. The small percentage of deafness that was cured was insufficient to trump the greater risks associated with surgical experimentation, some of which could even further damage hearing loss or even kill a patient (see Chapter Three).

In 1829, Curtis continued his discussion on the importance of medical examination on children before admission into the Asylum, in his *An Essay on the Deaf and Dumb*. The *Essay* begins with a note on the remarkable state of deaf-mutes and how perception of the deaf "has now assumed that degree of importance it is entitled to, among the numerous efforts in which science, benevolence, and liberality, are exerted to improve the condition of the unfortunate portion of the community."¹²⁶ As Curtis outlined in the preface, the purpose of his publication was to demonstrate the necessity of the inspection of children in early infancy, in order to relieve such imperfections in hearing losses and cure if necessary, before it was "too late." Reflecting on his previous attempts to merge aural surgery with education, he wrote:

I have candidly stated my opinions respecting the utility of establishments for the education of the deaf and dumb, and have pointed out the circumstances under which they should be resorted to, as well as the extent of their province. I have shewn that a symbolic mode of education only is adopted in them, without the least attempt at any rational mode of cure. The chief objection to such education is, that it is attended with much difficulty, must proceed for a great length of time, and is, in the end, very incomplete. In proposing, therefore, a medical education, or rather treatment, this advantage will be attained, namely, that it can in no way interfere with the other mode of education, but indeed, nay be combined with it, both plans proceeding at the same time.¹²⁷

Even though Curtis wrote a chapter outlining the history and importance of educating the deaf and dumb, he asserted that symbolic education should only be resorted after *all* medical and surgical

¹²⁶ Curtis, *An Essay on the Deaf and Dumb*, xiii.

¹²⁷ Curtis, *An Essay on the Deaf and Dumb*, xxvii.

means to alleviate deafness have been tried. This is an interesting stance, for Curtis recognized the experiences of the French aurists at the *Institution Nationale des Sourds-Muets*, particularly Itard, who were the first to advocate symbolic education and speech training as part of the aurist's responsibility, but only after all medical recourses have failed. Perhaps unsurprisingly, his comments weren't well-received by educators, though book reviews of the *Essay* in medical periodicals were largely positive.¹²⁸ The difficulty with Curtis' claims—and of aural surgery in general—was its promise for delivering cures that could never be realized, a promise that further strengthened educators' reluctance for finding a role for aurists in the Asylum.

MISS HANNAH THATCHER

Curtis was not alone in offering his services to the London Asylum. William Wright, who began his professional career in Bristol but later moved to London and acquired a prominent practice out of his residence at 15 Princes Street, Hanover Square—which he advertised as “The Institution for the Relief of the Poor afflicted with Deafness or Disease of the Ear.”¹²⁹ Wright’s practice included members of the nobility of patients, including Arthur Wellesley (1769-1852), the first Duke of Wellington. It was well-known that the Duke was afflicted with an ear malady

¹²⁸ The *American Annals*, for instance, wrote: “There may be a measure of truth in what he says on this head; and yet there are so few well attested cases of the cure of congenital deafness, and the parents and friends of the deaf and dumb have been so often cheated and subjected to heavy expense by promise of cure that were never realized, that there seems to be some ground for the distrust now so generally felt of medical experimenters upon the ear.” “Organs of Speech and Hearing,” *American Annals of the Deaf* 2.3 (April 1849), 159.

¹²⁹ William Wight, *Observations on the Effects of Mercury on the Organs of Hearing, and the improper use of it in cases of nervous deafness* (London: Printed for the author, by J. Davy, Queen Street, 1822). The information for Wright’s “Institution” is printed on the back of this slim pamphlet, along with opening hours (Wednesdays and Friday Mornings at 9am) and directions.

following a battle, but few knew the facts of the case as Wright did. It was not until 1852 when Wright published a pamphlet, *On the Treatment of Deafness* just after the duke's death, disclosing that Wellington's hearing in his left ear had been initially damaged by gunfire then completely lost after a botched treatment by another practitioner who applied a dangerous solution of caustic.¹³⁰ Wright published widely throughout his long career from 1817 to his death in 1860, and much of his work is dominated by outbursts against practitioners who provided ill-advised remedies such as caustics, mercurial, "acoustic drops," and other "absurd remedies" that served to only further damage the ear.¹³¹

Part of his early career included teaching deaf-mutes the element of speech, noting that cases of deaf and dumb were "only extreme cases of deafness, which commenced at a very early age." These cases could only be remediable with symbolic education, for

persons, who have been deaf from such an early period of their lives, can only make their wants and sentiments known by a series of pantomime; still there is a great variety in the degrees of deafness in those children; some being able to hear a horn, whistle, or even a great exertion of the human voice; and these I consider very proper cases to receive the most sedulous and preserving professional care and attention, as they hold out a fair prospect of affording the highest gratification to a parent, and fame to the practitioner, by successful results.¹³²

He particularly makes a distinction between who were born totally or not even deaf, but who lost hearing from some illness, with deaf-mutes who never reflect on any sound in their vicinity; the

¹³⁰ William Wright, *On the Treatment of Deafness, as exemplified in the Case of Field Marshall his Grace the Late Duke of Wellington* (London: John Walley, 1853). Also: John M. Picker, *Victorian Soundscapes* (Oxford: Oxford University Press, 2003), 9.

¹³¹ Picker, *Victorian Soundscapes*, 9.

¹³² William Wright, *Plain Advice for all classes of Deaf Persons, the Deaf and Dumb, and those having Diseases of the Ear* (London: Callow & Wilson, 1826), 7.

former, Wright explains, “were more probably the victims of inconsiderable care,” and whose hearing and speech could in fact, be improved.

On 21 February 1816, Miss Hannah Thatcher, an orphan from a “good family of Bristol” was placed under Wright’s care by her aunt, having been discovered she was deaf-mute. Wright describes their meeting and the progress of his work with her in immense detail:

I had not only the evidence of her Aunt, with whom she had resided all her life-time, and several others of her relatives, her mother having died in giving birth to her, but also that of Mr. Mortimer, an eminent surgeon &c., of Bristol, who had attended Miss H. Thatcher’s mother, and had known the young lady from her birth. And they all concurred instating there was no sound that could be made which she could hear. I saw her every second or third day until the 16th of April, when she could hear the ticking of a watch some distance from her head, and heard and repeated very correctly any sound. On the 29th of the same month, Mr. Mortimer ascertained that such was the fact; on the 2nd of May she began to receive education; and shortly after she came to reside in my house [when she was 16 years of age], in order that she might with more facility acquire the faculty of speech.¹³³

Word of Wright’s success with teaching Miss Thatcher to speak and hear reached Queen Charlotte. On 12 December, 1817, the Queen requested Wright to present his young pupil at Bath; she was soon fascinated with the testimonials of the girl’s origins, education, and Wright’s methods—which were kept discreet. On 13 January 1818, Wright received a letter from the Countess Dowager of Ilchester, who wrote: “Yesterday I was honoured with Her Majesty’s commands to acquaint you, that having had an opportunity of witnessing the efficacy of Mr. Wright’s practice and ability as an aurist, her Majesty grants him the appointment as her Surgeon-Aurist.”¹³⁴ The

¹³³ William Wright, *Observations and Facts Relative to those born deaf and consequently dumb* (London: William Strange, 1843), 9.

¹³⁴ Wright, *Observations and Facts*, 9.

warrant of Wright's appointment was officially signed on 16 December 1818, earning him an eminent reputation as an aurist.¹³⁵

Hannah Thatcher was only one of Wright's successful cases in restoring hearing and speech to a deaf-mute. He also listed a 4 year old child consulted by a Miss Jane Day and Dr. Felix; 17-year old G.F. Thomas of Bristol, a 7-9 year old boy and a 11 year old girl of the family Primm, from a village near Cross, in Somersetshire; and a Miss Mary Adam. Wright clarified his initial and ultimate goal was to restore hearing loss completely—effectively cure deafness—and he acknowledged that his “plan has always been to increase the strength and health of the body, and to treat the deaf and dumb in the same manner as any case of extreme deafness,” applying and modifying treatment as according to circumstances.¹³⁶ Some children had ailments that could be cured surgically or medically, while others required more intensive care and treatment that included speech training and sound recognition.

Wright agreed, however, with Curtis' sentiments that children at the London Asylum did not receive proper medical or surgical assistance, but his experiences with the Governors was quite different from Curtis'. In 1819, the Duke of Gloucester, patron of the Asylum, proposed to the Governors for Wright to attend the pupils as Surgeon-Aurist. With the Duke's backing, and the support of a Dr. Bain, from the College of Physicians, Wright petitioned to the Governors at the Asylum. He used his case with Hannah as an example of his support of the Asylum's policies on education for deaf-mutes. The petition was subsequently rejected. In 1823, two Life Governors of

¹³⁵ “Obituary: Mr. W. Wright, Surgeon-Aurist to the Late Queen Charlotte,” *Medical Times and Gazette* 120 (1860), 328.

¹³⁶ Wright, *Observations and Facts*, 13.



*Image 6: Portrait of Miss Hannah Thatcher, from “Case of Miss Thatcher, born Deaf and Dumb,” *The Gentleman’s Magazine* 93 (1829). Wellcome Library Images ICV No.17058.*

the Asylum—“C.S” and “R.M”—wrote a letter to the editor of *The Gentleman’s Magazine*, providing an explanation to their rejection of Wright’s petition, as well as those of other aurists.¹³⁷

¹³⁷ “Case of Miss Thatcher, born Deaf and Dumb,” *The Gentleman’s Magazine* 93 (1829): 8-10.

Supplemented with a plate of Miss Thatcher's portrait, which was printed in the edition, the Governors noted that her "case proves in a very decided manner what advantages may be attained by scientific and humane perseverance: at the same time it opens to view a reasonable hope, that these unfortunate beings, to whom this inlet of human knowledge appeared irrevocably closed, are not all in that dreadful situation."¹³⁸ They added, however, that diseases of the ear were still very little understood, and the field of aural surgery still plagued by the "itinerant Empiric," despite the attempts of "men of science and education" who undertook the treatment of deafness and other aural diseases. They also commended Wright's work with Miss Thatcher:

Her voice is harmonious and natural, but owing to a double uvula, or rather a division of it, she cannot pronounce some letters and words so fluently as other persons, which is to be attributed to that cause alone, as others similarly circumstanced...have the same difficulty. Her hearing is however, ever quite perfect, and she forms altogether a very striking example of the successful treatment of extreme deafness.¹³⁹

The anonymous Governors continued to remark that Miss Thatcher's case was not the only one of such success, and though Queen Charlotte was delighted with evidence that deafness was curable, had her life been prolonged, the Governors suggested she would have become Patroness of the Asylum. They nevertheless supported the Committee's rejection of Wright's proposal:

Resolved. That as this Institution is established only for the purpose of Instruction, it is the opinion of this Committee that they cannot, consistently with their sense of confidence repose in them by the Parents, permit the Pupils received by them for Education alone, to be subjected to any Medical Treatment whatever in regard to their Deafness, while at the Asylum, and that a copy of this Resolution be respectfully communicated to his Royal Highness the Patron.¹⁴⁰

¹³⁸ "Case of Miss Thatcher," 9.

¹³⁹ Ibid.

¹⁴⁰ Ibid., 10.

According to C.S. and R.M., in his proposal, Wright explained that the modes of his treatments for deafness “were not kept secret, neither were they painful, nor in any respect injurious to the constitution,” like some treatment methods advocated by other aurists.¹⁴¹ Parents had nothing to fear, for no harm would come to their child with proper inspection and care by an aurist. Wright also asserted the Committee had an obligation to present to the parents of the Asylum’s pupils all options from treatments available, even treatments proposed by aurists. The Governors, however, claimed that even if they accepted their Patron’s recommendations and employed Wright’s services, doing so would amend their regulations and thereby risk parental solicitude.

Nevertheless, the Governors, agreed with Wright’s proposal, explaining that the response was a natural one from the Committee, who were obligated to uphold the rules of the Asylum. If any consideration was made for amending the rules, a meeting of the Governors would have been necessary—but as C.S. and R.M. noted, none was held to evaluate the merits of Wright’s proposal, possibly due to confusion over the method of treatment that Wright proposed:

If, indeed, the method of treatment was calculated to give pain, or derange the health of the children, the general meeting of Governors would have evinced parental solicitude by refusing the offer; but it was not proposed that the children should be subjected to the ridiculous plan of having their constitution injured, and probably their lives destroyed with mercury; nor their ears burned with caustic. Indeed, the Governors would only have had to look at Miss Thatcher, to be convinced that the process was not injurious to health.¹⁴²

The Committee’s rejection of both Curtis’ and Wright’s proposal suggests that educators worried aural surgery’s penchant for experimentation threatened the stability of their educational efforts, since it could provide attractive options for parents to explore for their children. It was a risky

¹⁴¹ Ibid.

¹⁴² Ibid.

affair to balance the desires of aurists with safe and painless treatment approaches, for experimentation did not always lead to favourable results. As Wright revealed in his study of the improper use of mercury, in some cases, treatment actually worsened those afflicted with an ear ailment.¹⁴³ However, despite the Committee's rejection of his proposal, Wright's name is still listed as a subscriber in the Asylum's annual report for 1831.¹⁴⁴

CONCLUSIONS

The Asylum was demolished in 1886, its brick façade crumbling into dust, making ground for the erection of the new Royal School for Deaf Children. By 1968, the school on Old Kent Road closed as many deaf pupils were housed and educated at the newer location in Margate. Today, facing an overpass, there is a garden and a small primary school on the site, named after the benevolent Reverend whose tireless efforts made such an institution possible. Through much of the nineteenth century, the Asylum voiced its opinion loudly enough: the institution was not to become a "breeding ground for medical experimentation," and unless aural surgery demonstrated its value and merit in dealing with the "problem of deafness," the institution would not subject its pupils to experimental treatment procedures for the sake of medical progress.

The struggles Curtis and Wright faced in light of the London Asylum's reluctance in adopting an aurist into the institution suggests the prominence of the distinction between the social and medical meanings of deafness, which defined the extension of an authoritative hold over deaf-mutes. Townsend established the London Asylum with the intention of rescuing poor

¹⁴³ William Wright, *Observations on the Effects of Mercury on the Organs of Hearing, and the Improper use of it in Nervous Deafness* (London: J. Davy, 1822).

¹⁴⁴ *A Historical Sketch* (1831). It's likely that Wright also contributed during the 1820s, although I have not had access to the reports.

deaf mutes from their exile and presenting them with the skills and education necessary for assimilation and survival in hearing society. This image of the deaf constructed them as an object of charity and benevolence; as Margaret Winzer point out, education for the deaf was not just “an exercise in humanitarianism,” but rather a process whereby the deaf were evangelized in order to be restored to hearing society.¹⁴⁵ Education, sign-language, and speech were constructed as the only means whereby this restoration was possible.

As this chapter has shown, aurists also viewed the concept of deafness through charitable lens. Although Curtis and Wright criticized educators for propelling the “popular prejudice” and thus undermining the efforts of aurists to build a speciality, they also advocated medical intervention with social reform. To Curtis, the very role of the aurist was a social position: by treating and curing deafness in young deaf individuals, the aurist was preventing these individuals from living a life of hopeless despair. However, the prominence of the London Asylum maintained the popular prejudice, constructing the Asylum as the sole authority over the jurisdiction of the deaf. Wright not only approached deafness as a dual endeavour merging medical treatment with social reform, but he also saw deafness as more than an auditory problem. His work with Hannah Thatcher suggests that there were rare instances in which aurists applied different approaches to the “problem of deafness,” and that linguistic training was not necessarily confined to educational institutions. Yet he too, was challenged by the “popular prejudice,” viewing it as a limitation to his career goals.

A key theme emerging from this chapter is the multiple meanings of “cure.” Educators certainly saw deafness as being incurable medically, but to them, being “cured” translated to being able to “hear” the word of God, understand the bible, and be able to clearly express ideas.

¹⁴⁵ Winzer, *The History of Special Education*.

Townsend's astonishment of John Creasey's success with speech and expressing ideas showcased the value of education as a "cure;" the deaf could excel as functioning citizens if they were granted avenues for improving their mental and moral faculties. Likewise, Wright's work with Hannah Thatcher suggests that speech was viewed as a marker that a "cure" worked—whether the aurist applied linguistic training in addition to, or following, medical approaches for treating deafness. The London Asylum, to Wright, could not be the sole authority on deaf-mutes. The "popular prejudice" needed to be put to rest, for as Wright explained,

[A]lthough improvements in science presented a prospect of numbers of these unfortunates being cured, the clouds of prejudice overshadowed the scene, and the parents of the children were not allowed the option. Thus the valuable period of life of these poor children passed away, without an effort to the directors of this valuable charity being made to aid the cause of humanity by allowing those who wished it, to have a chance of receiving the sense of hearing.¹⁴⁶

Wright was certainly an exception. Not many British aurists viewed the problem of deafness as being composed of both medical treatment and linguistic training. But they all agreed that the "popular prejudice" was an issue to be solved.

As the problem of deafness remained unsolved throughout the early nineteenth century, the tensions between educators and aurists raised a broader question of monopoly—*who had the right to take care of the deaf?*—a question many British aurists would contest by arguing physiological causes and cures for deafness were better able to integrate the deaf into hearing society. It would not be until the early 1850s when the Asylum finally appointed a consulting aurist to minutely examine children already admitted into the institution. Overcrowding, the growing expenses, and the large number of applications might have contributed to this decision.

¹⁴⁶ Wright, *Observations and Facts*, 15.

The transformation of aural surgery towards a growing and respectable branch of surgery during the 1840s may also have played a part (see Chapter Five). The Asylum hired the aurist Joseph Toynbee, surgeon at St. Mary's Hospital, who was earning a respectable name for himself as an anatomist and surgeon. Toynbee would eventually dissect over 2000 ears through twenty years of his career, many of them derived from children at the Asylum, whose conditions he had examined and treated prior to their deaths.

2. AN INSTITUTION FOR FASHIONABLE MEDICINE THE EARLY YEARS OF THE ROYAL DISPENSARY FOR DISEASES OF THE EAR

'But Pat,' says I, 'great fees they'll want'
'Not they, my friend,' cries he;
'For there the poor are nothing charged,
But cured with Curtisy!'¹

INTRODUCTION

In an 1825 article in *The London Magazine*, the writer pondered on the public's continuously shifting tastes in all things regarded as "fashionable." Aptly titled "Of Fashion in Physic," the article noted that medicine was viewed through the lens of fashion to the point "[t]he history of fashion in physic would be almost the history of physic itself," a tedious project the writer did not care for.² Rather, sweeping over the most grandiose of fashionable trends in medicine—from drinking wine and brandy for fevers, to wasting away from consumption, or touching a coat and catching plague, and even popping mercurial pills for just about anything—it was apparent that there are always diseases and there are always those who profess the knowledge for curing them: "He alone who discovered the disease can know how to cure it...Hence the fashion, and the diseases, and the discoverer, become inseparables." And the public gets caught in the wave of fashion until the next tide comes along.

¹ ““Paddy out of Hearing!” Sung at the Grand Fete Champetre, held Saturday 27 May 1837.” Pamphlet, Wellcome Library Medical Ephemera.

² “Of Fashion in Physic,” *The London Magazine* 3 (October 1825).

The physician of course, more than willing to line his pockets with the jangling noise of shillings, takes advantage of fashionable diseases. There is fashion with and without terror, the writer informed us, and it is the fashion with terror that becomes the most profitable, for it appealed to people's vanities and made the remedy a necessity. Dentists, oculists, and aurists all fell within this category, but it was the aurist, the article insisted, who was the "last and basest of all the divisions of the art, science, trade, and profession, of what is call physic." He contributed next to nothing and the public paid for its fashion:

The people are not half deaf enough, or half the people are not deaf enough—which is the same thing. It is the business of the aurist to persuade them that they are deaf, or have been deaf, or will be deaf—or how could he exist? If they are not quite deaf enough, he makes them deafer—he persuades others that they are deaf, or will be deaf, or ought to be deaf—which answers equally well. It becomes the fashion to be an aurist—it becomes the fashion to have an aurist. Aurist sets up against aurist, their rival merits are discussed; and, in time, it is probably, no man will be able to hear without an aurist, as no man can now eat without a dentist.³

The prose speaks volumes about how aurists were generally viewed by the consuming public, particularly the practitioners who managed to obtain prominent positions in courts and aristocratic households. John Harrison Curtis attended to King George IV, the households of Cumberland, York, Kent, and Gloucester. William Wright was titled "Surgeon-Aurist-in-Ordinary" by Queen Charlotte and counted the Duke of Wellington as his favourite patient. William Maule (c.1775-1851) was also an aurist for George IV; and John Stevenson (1778-c.1844) treated the Princess of Wales, and Leopold, the Duke of Saxe-Coburg-Saalfeld. It seems uncanny that, for a field

³ "Of Fashion in Physic," 184.

predominately viewed as ineffective and useless, a select group of aurists gained notoriety and flourishing practices.

Late eighteenth and early nineteenth-century English medicine, as Nicolas Jewson tells us, was largely based upon the patronage system. In addition to coaxing the aristocratic for favours, medical practitioners spurred fashionable trends in medicine, shaping their careers and identities through interaction with the laity rather than through their colleagues. This “consultative relationship,” as Jewson outlines, allowed the sick to exercise control over innovative treatments applied to their bodies—“Hence the form and contents of medical theories reflected the assumptions, obsessions, and interests of the most powerful sections of the lay public.”⁴ Fashion spurred consumerism, for the commercialization of leisure and the birth of the consumer society spread the ability to buy and sell on a much wider level.⁵ Appealing to fashionable tastes by advertising the efficacy of one’s cures also helped to sell a practitioner’s skills and practice, as Harold Cook argues.⁶ This move encouraged practitioners to place a greater emphasis on delivering miraculous medical “cures” composed of powerful pharmaceuticals or innovative and painless surgical manipulators, which would deliver on the promise to treat the fashionable disease. Within the market for health care, these “cures” could not only secure patronage support, but also provide a variety of goods and services for the consuming public. It also meant that as

⁴ N.D. Jewson, “Medical Knowledge and the Patronage System in 18th Century England,” *Sociology* 8 (1974): 369-385.

⁵ Neil McKendrick, John Brewer, and J.H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (Bloomington: Indiana University Press, 1982).

⁶ Cook, Harold J. “Good Advice and Little Medicine; The Professional Authority of Early Modern English Physicians.” *The Journal of British Studies* 33 (Jan. 1994): 1-31.

newer goods and services were introduced, “fashionable doctors [could come and go] as rapidly as fashionable cures.”⁷

How did aural surgery—or at the very least, the aurist—become a fashionable trend during London’s first three decades of the nineteenth century? This Chapter concentrates on the founding and development of John Harrison Curtis’ Dispensary for the Diseases of the Ear, which was established in 1816 at 38 Carlisle Street, London, near Soho Square. At the time, the only other recognised aurists in London were William Maule, John Stevenson, and a Mrs. Martha Serle, and neither one of them had a lucrative practice flowing with patients, and posed no competition to Curtis’s Dispensary. Soho’s clerks, domestic servants, needlewomen, artisans, distressed foreigners, soldiers, sailors, and policemen, all flocked to the Dispensary seeking advice and relief.⁸ The “Prince of Ear Diseases,” as *The Family Oracle of Health* ennobled Curtis, “stands high, in a word, in his own department, as Sir Astley Cooper does in his, “offering to the deserving poor a much-needed service.”⁹ With the Dispensary, Curtis was applauded for “having drawn attention to the fact that many cases of Deaf and Dumb, hitherto considered hopeless, admit of palliation or cure.”¹⁰ The “increasing utility” of the Dispensary, another writer added, “is daily manifested by a general success in the treatment of Deafness and other Diseases of the Ear not previously known in this country.”¹¹ The Dispensary grew to such prominence that by 1820 it secured royal patronage and was renamed the Royal Dispensary for Diseases of the Ear (RDDE) and relocated to larger grounds on 10 Dean Street, Soho.

⁷ Boyd Hilton, *A Mad, Bad, and Dangerous People? England 1783-1846* (Oxford: Oxford University Press 2006), 146.

⁸ “35th Annual Meeting of the Dispensary,” *The London Lancet* 2 (1852): 154.

⁹ *The Family Oracle of Health: Economy, Medicine, and Good Living* 8 (1824): 329.

¹⁰ *The Lancet* 11 (1829).

¹¹ Anthony Highmore, *Philanthropia Metropolitana: A View of the Charitable Institutions* (1822): 355.

By drawing national attention on the importance of treating deafness, the RDDE played a significant part in constructing aural surgery as a fashionable enterprise. Relieving or curing a large number of patients not only demonstrated that deafness was curable, but that the claims of those who propelled the “popular prejudice” were tenuous. As discussed in the previous chapter, the London Asylum for the Deaf and Dumb constructed an image of deafness that rooted care and improvement in education; only by receiving the necessary training for speaking, understanding, and communicating, could the deaf be able to improve their position in society and remove themselves from isolation. Curtis challenged this jurisdiction over the deaf population. As he made clear in his writings, he established the RDDE to provide an institutional base for aural surgery to develop, expand, and address new techniques for treating and curing deafness. In so doing, the RDDE would not only undermine the validity of the “popular prejudice,” but also provide an attractive career option for other medical practitioners to embark upon. To Curtis, an increase in practitioners interested in aural surgery as a career provided possibilities for the field to establish its legitimacy as a reputable surgical specialty.

Within the broader history of deafness, the RDDE signified a shift in perceptions of the deaf, creating an image of deafness that resided in the hands of aurists. Deafness, in other words, was a medical, not an educational or social responsibility. This did not mean that Curtis, or other aurists at the time disregarded their claims for social reform in conjunction with their medical work. Nor did it mean that the medical image displaced the social one. Rather, while Curtis used the RDDE to push for the importance of medical treatment for deafness, he also recognized that there were cases where medical or surgical interventions were ineffective. Hearing trumpets were available at little or no cost for the poor deaf if all medical or surgical means were exhausted; these

trumpets highlighted the charitable aspect of RDDE, while also maintaining aural surgery's goal to restore hearing loss, even if through technological assistance.

As with other nineteenth-century medical institutions in England, the RDDE can be perceived as a form of social intervention as well as a medical institution. Charles Rosenberg has discussed how dispensaries illustrate an important aspect of the relationship between medicine and philanthropy, noting that the value of dispensaries often lay in how they were able to address general social needs.¹² The pressures of industrialization, which brought rapid population growth, blighted cities, and increasing illness, became a reflection of Britain's entrepreneurial nature as well as its philanthropy. As such, in an "age of charitable societies" dispensaries were founded upon humanitarian reasons and conditioned by Christian individualism that promoted a sense of duty and philanthropy as the most effective remedy for social ills.¹³ The middle class underpinned the development of charitable institutions, which largely relied upon donations and subscriptions. Subscriptions in turn marked individuals as philanthropists, bolstering their social status, often by listing their names on subscribers' lists.¹⁴ Dispensaries with glorious backers, however—members of the aristocracy, respectable businessmen, or royalty—were able to merge philanthropy with fashion, drawing an increased social support for the institution. In addition, as F.K. Prochaska explains, "[i]f charitable attachment gave respectability and opportunities for public displays to the monarchy, royal patronage was a life-line to innumerable charities, a virtual guarantee of

¹² Charles Rosenberg, "Social Class and Medical Care in Nineteenth-Century America," *Journal of the History of Medicine* (June 1974): 32-54.

¹³ Rosenberg, "Social Class and Medical Care," 43.

¹⁴ Lindsay Granshaw, *St. Mark's Hospital London: A Social History of a Specialist Hospital* (London: Hollen St. Press, 1985), 6.

prosperity."¹⁵ These charities ensured the defence of the prestige and image of the social group to which the recipient of charity belonged.

The governance of specialist hospitals and dispensaries like the RDDE followed the same format as other nineteenth-century charitable institutions.¹⁶ They were largely established by medical practitioners whose enlightened self-interest merged their sense of duty with social ambition. As Lindsay Granshaw has shown, not only did these institutions attend to the needs of the deserving poor unable to afford a practitioner, but the growth and power of specialist institutions also reflected Britain's entrepreneurial nature. She argues these institutions played a key role in shaping the power and positions of medical specialists, as medical entrepreneurs turned to hospitals and dispensaries as routes "to power, prestige, and wealth, challenging traditional patterns of medical practice."¹⁷ John Cunningham Saunders' (1773-1810) founding of

¹⁵ F.K. Prochaska, *Philanthropy and the Hospitals of London: the King's Fund, 1897-1990* (Oxford: Clarendon Press, 1992).

¹⁶ While hospitals for the sick became widespread in the eighteenth-century, public dispensaries did not develop until after the establishment of John Lettsom's (1744-1815) Aldersgate Street Dispensary in 1770. Dispensaries were relatively easy to establish and cheaper to manage than hospitals; all a medical practitioner required to set up a dispensary was rent a house or a few rooms in an area dominated by the middle classes, install a few beds, and employ a residential matron and house surgeon to manage patients. By 1820, there were around twenty-five dispensaries in London and another thirty-five in the provinces. These institutions were also more accessible to the urban poor, who often found difficulty in seeking permission from hospital governors to gain admission. Moreover, since dispensaries mainly provided outpatient care, a bulk of medical treatment was done in the patients' own homes. Edward Boyle, *Modern Britain, Third Edition: A Social History 1750-2010* (A&C Black, 2012), 220. Also: Lindsay Granshaw, "'Fame and fortune by means of bricks and mortar': the medical profession and specialist hospitals in Britain, 1800-1948," in Lindsay Granshaw and Roy Porter (eds.), *The Hospital in History* (London & New York: Routledge, 1989), 199-220; Steven Cherry, *Medical Services and the Hospital in Britain, 1860-1939* (Cambridge: Cambridge University Press, 1996); Brownyn Croxson, "The Public and Private Faces of Eighteenth Century London Dispensary Charity," *Medical History* 41 (1997): 127-149; George B. Carruthers and Lesley A. Carruthers, *A History of Britain's Hospitals* (Book Guild Publishers, 2005); John Henderson, Peregrine Horden, and Alessandro Pastore (eds), *The Impact of Hospitals, 300-2000* (Peter Lang, 2007).

¹⁷ Granshaw, "'Fame and fortune by means of bricks and mortar,'" 199. Lindsay Granshaw, "The Rise of the Modern Hospital in Britain," in *Medicine in Society: Historical Essays*, ed. Andrew Wear (Cambridge: Cambridge University Press, 1992), 206. Also: Mark S.R. Jenner and Patrick Wallis, *Medicine and the Market*

the London Dispensary for the Relief of the Poor Afflicted with Eye and Ear Diseases in 1805 (later renamed the London Infirmary and Moorsfields Hospital) was the template for successful outpatient dispensaries that later begat specialist hospitals.¹⁸ Saunders' institution was also the inspiration for Curtis' establishment of the RDDE. After Saunders' death, Curtis insisted there was a need for specialized treatment for aural diseases, which could be fulfilled by the RDDE.

As charitable institutions, specialist hospitals also tended to be more social than medical institutions. With a board consisting of some of the most eminently titled and fashionable men of London society, the RDDE was praised by all levels of society. Like the London Asylum, the RDDE depended on the gracious donations of its subscribers. Yearly Subscribers and Annual Reports repeatedly stressed the value of the institution and encouraged the charitably-minded to donate, showing how treatments at the Dispensary led to a favourable percentage of deafness being cured. Publicity for financial support in the forms of sermons, *grand fête champétres*, and concerts were also beneficial for raising funds for the institution, drawing attention to the merits of the dispensary through entertainment. Yet, specialist hospitals also offered important opportunities for the medical profession to establish new types of care as well as forge their own individual or collective reputations.¹⁹

Curtis viewed the Royal Dispensary for Diseases of the Ear as a response to the need for accurate and specialized treatment of aural diseases. Additionally, the foundation of the RDDE was a crucial development for aural surgery's claims to legitimacy and specialist identity, for it

in England and its Colonies, c.1450-1850 (New York: Palgrave MacMillian, 2007) and Christelle Rabier (ed.) "The Crafting of Medicine: Introduction to the "Fitting for Health" Special Issue," *Technology and Culture* 54.3 (July 2013).

¹⁸ Granshaw, "Fame and fortune by means of bricks and mortar," 202.

¹⁹ Jonathan Barry and Colin Jones, *Medicine and Charity before the Welfare State* (London & New York: Routledge, 1991), 9.

provided institutional roots for aurists to counteract the popular prejudice. As this Chapter shows, the RDDE not only provided an anchor for aural surgery to develop as a specialty, but it also provided a tremendous boost to Curtis' career as a practitioner and entrepreneur: it boosted his reputation on the national stage, constructed him as a "great aurist," and elevated Curtis' charitable status. More so, the success of the RDDE led to Curtis' position in royal court and patronage that supported him in publishing various treatises on aural surgery, eye diseases, health, and hygiene. Since the history of the RDDE is tied to the history of its founder, this Chapter begins with an overview of John Harrison Curtis' early career and his eventual founding of the institution, followed by a history of the RDDE and the public responses to the institution. The measure of the RDDE's success—and consequently, of Curtis'—demonstrated to the London public that aural surgery was deserving of attention, of transformation, and of respectability. It held the potential for becoming an institution that could strengthen the communal aspects of the field.

CURTIS THE DISPENSER

John Harrison Curtis was born in Uxbridge, England, the descendant of a respectable family of Quakers originating from Alton, Hampshire. The Curtis family were amongst the earliest followers of the Dissenter George Fox's (1624-1691) Religious Society of Friends when Thomas Curtis (1662-1707) and his wife Elizabeth Cowdray (b.1687) became Quakers. Thomas and Elizabeth bore six children, including the apothecary John (1697-1765) who married Mary Inwood of Alton and became the first member of the Curtis family to reside in Alton. John and

Mary bore three sons, the tanner John (b.172?) who married Ann Jeffery of Islington near Alton, and had eight children, their eldest the celebrated botanist William Curtis (1746-1799). John the surgeon at Cowley, third son of John and Anne, received his M.D. and married Lydia Davis of Reading, and had seven children: aurist John Harrison Curtis, Anne (b.1786), William Nease (b.1788), George (b.1790), James (b.1792), Maria (b.1795), and Matilda (b.1798). Anne would later administrate John Harrison's estate, even living with him along with younger sister Matilda, and become the recipient of his Navy pensions.²⁰ The Curtis family boasts several more members of the medical and surgical arts, including James (1740-1813) surgeon-apothecary of Alton and brother to John the tanner; George (b.1764), surgeon-apothecary of Liphook and youngest brother of William and John; surgeon at Alton, William (b.1770), son of James and who attended Jane Austen when she lived at Chawston, his nephew Edward Curtis May, M.D., and fellow of the Royal College of Surgeons, and Charles May, Fellow of the Royal Society, and Fellow of the Worshipful Company of Apothecaries. The botanist William also studied anatomy at St. Thomas' Hospital and qualified to practice as an apothecary.²¹

After being educated in general literature at the classical academy of Reverend T.E. Beasley, John Harrison Curtis learned the preliminary branches of medicine from his father.²² As Curtis tells us, after his classical education, he headed to London to attend principal lectures on various

²⁰ Mrs. Anne Snell Chauncy, widow, was granted administration after Curtis died at his resident in Hague house, Douglas, at the Isle of Man; Administration was granted on 22 September 1856. Henry Curtis, *Memoirs of Dr. John Harrison Curtis, Aurist* (1915). Manuscript. UCL Ear Institute Library Historical Collection. John Harrison Curtis' half-pay pension was claimed by Anne on 17 November 1853. The National Archives UK, ADM 45/31. Matilda is listed in the household with Curtis and two female servants in the 1841 census report.

²¹ "England and Wales, Non-Comformist Record Indexes (RG4-8)," FamilySearch.org; William Curtis and Samuel Curtis, *William Curtis, 1746-1799: Fellow of the Linnean Society, Botanist and Entomologist* (Warren and Son Limited, 1941).

²² "John Harrison Curtis, esq." in *Authentic Memoirs, Biographical, Critical, and Literary of the most eminent physicians and surgeons in Great Britain*, 2nd edn. (London, Sherwood, Neely & Jones, 1818): 534-539; 534.

departments of medicine; but he reveals nothing more about his education and training in any of his autobiographical reflections—nothing about the lectures, nor his professors, and least of all, his studies and interests in medical matters.²³ The War of the Fifth Coalition brought Curtis' studies to a standstill, as he became one of thousands of young men volunteered to fight against the French army's advances towards Britain. With his medical learning in hand, Curtis enlisted in the Royal Navy in 1808, to obtain his qualifications as surgeon and extend his medical skills. Since 1745, the Navy and the Colleges of Surgeons in London, Edinburgh, and Dublin held close associations with each other as the College was responsible for examining naval surgeons for active service. To be admitted as surgeon in the navy, candidates had to obtain a certificate of competence from the College and then be subjected to a two-hour oral examination at Somerset House led by the Court of Examiners, a group of 10 surgeons who effectively ran the Company of Surgeons in London.²⁴ Certification did not automatically guarantee membership to the College, but in some cases it decreed candidates qualified for civilian practice once they were discharged.²⁵ According to the College Examination Books, Curtis took the exam at four different occasions: he was "referred" for further examination on 5 February 1808, and took two more exams on 17 June and 16 December of the same year.²⁶ He eventually obtained his qualifications on 19 May 1809 as Surgeon 5th Rate—the lowest rank, similar to an apprentice—in the Royal Navy and was immediately assigned as a medical dispenser with the Navy Medical Staff.

²³ John Harrison Curtis, *An Introductory Lecture, as delivered 1816 at the Royal Dispensary for Diseases for Diseases of the Ear* (London: W. Clowes, 1818), 9.

²⁴ David McLean, *Surgeons of the Fleet: The Royal Navy and its Medics from Trafalgar to Jutland* (London & New York: I.B. Tauris, 2010), 23.

²⁵ Christopher Lloyd and Jack L.S. Coulter, *Medicine and the Navy 1200-1900 Volume IV—1815-1900* (London: E & S Livingstone, 1963).

²⁶ Court of Examiners, 1809. The Archives of the Royal College of Surgeons of England. With special thanks to archivist Louise King.

After a brief stint at the depot for French prisoners at Stapleton, Curtis was transferred to Haslar Hospital at Portsmouth, the navy's most advanced and properly equipped hospital for officers and seamen. Built on a low-lying peninsula and dressed with Portland stone, the double block of buildings were raised three stories high, with two wings each measuring 560ft, making the hospital the largest brick building in Britain.²⁷ The quadrangle and hospital grounds were surrounded by a wall 12ft in height and guarded by the military patrol to deter desertion. The two wings contained 84 wards, each with its own water closet and washing area. Only a fifth of the patients were admitted for surgical cases; the rest were treated for general medical complaints, including bronchitis, coughs, scurvy, typhus, and other ailments consistent with prolonged exposure to cold, damp air. Serving the Royal Navy from 1753, Halsar Hospital was designed to accommodate 1800 patients, but with an annual turnover of 9000/year, the hospital was often overcrowded and poorly staffed. A physician, two surgeons, a number of assistants, and one dispenser initially staffed the hospital; after 1795, it employed several more physicians, surgeons, surgeon's mates, a number of administrative officers and assistants, and dispensers.²⁸

By the time Curtis was stationed at Haslar, army causalities from the Peninsular Campaign overflowed the wards, earning the hospital a reputation of exemplary military service. It also meant that there were numerous medical and surgical cases for a young and earnest practitioner to observe, analyze, and treat, namely, bleeding, broken, and baffling wounds. The navy, in other words, allowed opportunities for medical and surgical observations and experiments, exposing practitioners to a wider array of medical injuries and care. The social disparities between physicians and surgeons still remained in the hospital, however, and even in 1798 a well-trained

²⁷ Bale Vale and Griffith Edwards, *Physician to the Fleet: The Life and Times of Thomas Trotter, 1760-1832* (Suffolk: The Bordell Press, 2011), 87.

²⁸ McLean, *Surgeons of the Fleet*, 7.

doctor could be dismissive of a surgeon's ability.²⁹ As Margarette Lincoln notes, until 1805, naval surgeons were licensed strictly for naval surgery, and held warrants, rather than commissions, as officers; furthermore, their rank and salary were subjected to mismanagement and poor payouts. Although some surgeons found eventual success in civilian practice, for the most part, many were subjected to dismissal at the end of the war and struggled to receive their pensions. Even though Curtis' low ranking as a medical dispenser meant he worked as an apprentice under surgeons at Haslar, he was placed on the half-pay list and categorized as a "doctor" in the Navy. It's not clear whether this categorization owed to the mismanagement of naval lists or was an evidence of Curtis' promotion.³⁰ Either way, there is little evidence of Curtis' time at Haslar so it is difficult to ascertain the extent of his role as a medical dispenser and whether it extended beyond simply dispensing medicine.

As a dispenser, Curtis obtained the surgical and clinical expertise necessary to serve him in his later civilian work. The role of a medical dispenser was generally to make up medicines for prescriptions written by a physician or by a surgeon; in some cases, surgical training enabled the dispenser to work as a surgical assistant, especially if the hospital was understaffed. Curtis' medical education prior to commission was typical for prospective surgeons during the early nineteenth century: attendance at lectures at the teaching hospitals in London, at St. Thomas' or St. Bartholomew's, or in private tutoring, were sufficient for aptitude in a variety of surgical

²⁹ Margarette Lincoln, "The Medical Profession and Representations of the Navy, 1750-1815," in *British Military and Naval Medicine, 1600-1830*, ed. Geoffrey L. Hudson (New York: Rodopi, 2007), 201-226; 202.

³⁰ National Archives, Kew Gardens; ADM 45/31/650 (No.650): John Harrison Curtis, Doctor on Half Pay List, who died, 24 November 1852 (Notes on executor's applicant for money owed by the Royal Navy). Anytime an officer applied for commission, warrant, or pension, the Navy pay office would issue a certificate confirming his qualifying service—this became the only evidence of a Navy register until at least the 1830s when official registers were introduced. Regulation to half-pay also dismissed commissions from the navy.

knowledge. Training in these wards, however, was restricted to mere copying of case notes or observations of operations and surgical dressers. Students were not required to perform operations, but had to attend courses of lectures on anatomy and surgery in order to demonstrate their proficiency.³¹

Generally, the dispenser's responsibilities were no different than those of the apothecary. Anyone licensed by the Worshipful Company of Apothecaries could prescribe for a patient, but only in naval hospitals were such individuals categorized as "dispensers" instead of an "apothecary."³² The terminology owed to confusion over responsibilities: during the late eighteenth centuries, dispensers often served as assistants to physicians or surgeons, and to define the roles, in 1794 it was proposed that dispensers who served as assistants would hereafter be titled "Medical Assistants" and be granted a salary of £100 per annum.³³ A further revision occurred in 1805 by an Order in Council, declaring all "Visiting Assistants," "Assistant Surgeons," and "Assistant Dispensers" were to be called "Hospital Mates" or "Surgeon Mates" and were to receive 6s. 6d. per day in full pay, and 2s. 0d., for half-pay, and must also qualify for hospital appointments by examination from the Royal College of Surgeons.³⁴ They also had to wear a distinguishing uniform to mark their positions. A new title and a uniform could do little to alter the rigid social class of Georgian Britain and the inferior social standing that dispensers were often placed amongst.³⁵

³¹ W. Bonnici, "Early 19th century Maltese Doctors in the Service of the Crown," *Journal of the Army of Medical Corps* 143 (1997): 171-175; 171.

³² Christopher Lloyd and Jack L.S. Coulter, *Medicine and the Navy 1200-1900: Volume III—1714-1815* (Edinburgh & London: E. & S. Livingstone, Ltd., 1961), 52.

³³ Lloyd and Coulter, *Medicine and the Navy...Volume III*, 52.

³⁴ *Ibid*,

³⁵ Lloyd and Coulter, *Medicine and the Navy...Volume IV*, 12.

One major attraction of naval service was the knowledge that once surgeons or surgeon-mates were placed on half-pay and dismissed from their commission, they could set up a civilian practice without further examination from the Royal College of Surgeons, by virtue of their vast experience of medical practice during wartime.³⁶ Curtis was commissioned as a dispenser at Haslar during the “hottest period of the war...namely, after the battle of Trafalgar, and during the expedition to Walcheren.”³⁷ He had the ample opportunity to examine as many as 200 soldiers who were admitted within twenty-four hours as the troops arrived from Corunna, afflicted with pneumonia and dysentery, and many more severely wounded. Even more were indisposed with classes of diseases peculiar to sailors and soldiers. Furthermore, since medical officers at Haslar were prohibited from attending to private patients, their attention were mainly focused to surgical operations and to the numerous cases of diseases that came before them daily, a focus, Curtis observed, that contributed to the excellence of the hospital’s medical reputation as well as in its treatments of patients.

The *European Magazine* would write in 1819 that it was at Haslar, that “Mr. Curtis, during his service, had the honour of receiving the approbation of his Royal Highness the Duke of Clarence, on his inspecting this naval establishment.”³⁸ The favorable opinions of the Duke, Lord Gambier and other distinguished naval commanders would later lead to Curtis’ promotion as Dispenser of Hospitals at the depot for prisoners of war at Forton on November 13, 1810, where

³⁶ Lloyd and Coulter, *Medicine and the Navy...Volume IV*, 21. Stricter regulations for qualifications for both naval and civilian practice did not occur until 1831 as the Order in Council required that all candidates should not only require a certificate of competency from the Royal Colleges of Surgeons in England, Edinburgh, or Dublin, or from the Faculty of Physicians and Surgeons in Glasgow, but must also undergo further examination from the Naval Medical Service (23).

³⁷ John Harrison Curtis, *Observations on the Preservation of Health*, 2nd Edn (London: Henry Renshaw, 1838), 123.

³⁸ “Memoir of John Harrison Curtis, Esq.,” *The European Magazine and London Review* 75 (April 1819), 291.

he would oversee no less than 5000 prisoners.³⁹ Haslar was more than an institution that propelled Curtis' reputation as a practitioner or a place where he was able to expand his medical and surgical learning and skills: it was there, for nearly six years he would obtain a newfound interest to study diseases of the ear, upon becoming familiar with the work of eminent surgeon John Cunningham Saunders (1773-1810).

OBSERVING IMPERFECTIONS OF THE EARS

Born on October 10, 1773, Saunders was the youngest son of John Cunningham and Jane Saunders of Lovistone, in Devonshire Country. At eight years old, along with his brother, he was sent to Tavistock for classical learning; he eventually studied at the seminary at Southmolton until 1790, when he was then apprenticed to the surgeon John Hill of Barnstable, for five years. He then relocated to London to complete his medical education at the distinguished schools of surgery—St. Thomas and Guy's Hospital, focusing his studies on anatomy. Saunders' artistic gifts for explaining complicated three-dimensional structures inspired both the admiration and jealousy of his mentor, Sir Astley Cooper.⁴⁰ Saunders resided at Cooper's lodging at St. Mary's Axe, and became accustomed to the stink and filth of decaying bodies as Cooper and his apprentices made use of the "dead rooms" for their anatomical studies. Saunders' time with Cooper was spent toiling away at dissection of the many bodies brought by resurrection men, walking the halls of St.

³⁹ John Davis Long, "Mr John Harrison Curtis, of the Royal Hospital at Haslar, is appointed Dispenser to Sick Prisoners of War at Fortu, in the room of J.E. Dean, Esq. deceased." *The Naval Chronicle: Containing a General and Biographical History of the Royal Navy of the United Kingdom with a variety of original papers on nautical subjects* (Volume 24, July-December 1810). Eds. John McArthur, James Stanier Clarke (Reissue. Cambridge: Cambridge University Press, 2010), 437.

⁴⁰ Durin Burch, *Digging up the Dead: Uncovering the Life and Times of an Extraordinary Surgeon* (London: Vintage Books, 2008), 148.

Thomas and Guy's as a dresser, and eventually, taking up the position of Demonstrator of Anatomy with Cooper.

Despite being Cooper's protégé, Saunders' age limited his career trajectory. Too old to enter another formal apprenticeship, Saunders was unable to advance through the closed hierarchies of the hospital that would enable him to secure his surgical career.⁴¹ Prompted to leave and begin anew somewhere else, Saunders caved to Cooper's pleas. Overwhelmed with the number of individuals begging for help following his renowned procedure of tympanum membrane perforation, which earned him the Royal Society's Copley Medal, Cooper had enough of the demands of him as an aurist. He wished Saunders to take over the streams of patients clamouring to relieve them of their suffering. *The Lancet* describes Cooper's desire to quit aural surgery and have Saunders take his place:

But whilst this flash of professional reputation gratified him, he soon began to find that the public were beginning to appreciate his talents as an aurist alone. He therefore, in order to get rid of the deaf, proposed to Saunders that he should become an aurist. Saunders, with the true spirit of the times, instantly compiled a work on the anatomy and diseases of the ear, as an advertisement of his capability.⁴²

Saunders' work was compiled as *The Anatomy of the Human Ear* (1804) and is a true testament to his mentor. Not only did Saunders acknowledge Cooper's influence and dedicate the book to him, but he also followed the same criteria for anatomical studies that Cooper insisted were essential to the surgeon's practice. The book is a masterpiece full of colorful engravings detailing various aspects of the face and its parts, and was heralded by Saunders' contemporaries for being the first

⁴¹ Burch, *Digging up the Dead*, 187.

⁴² *The Lancet* no.171 (9 December 1826), 324.

English work providing proper merits to the study of the anatomy of the ear.⁴³ However, neither "the book nor the deaf answered [Saunders'] purposes; the book brought him few patients, and the deaf were found bad articles of trade."⁴⁴

On October 1804, following an epidemic of eye ailments in soldiers returning from war, Saunders published a proposal encouraging the founding of a charitable institution for the care of eye and ear diseases. The proposal came into fruition in 1805 when, along with his friend John Richard Farre (1775-1862), he founded the London Dispensary for the Relief of the Poor Afflicted with Eye and Ear Diseases, in Charterhouse Square. By 1809, Saunders' hospital ceased to provide treatment for the ear, a decision that probably reflected his rising career as an ophthalmic surgeon more so than the lack of medical preference for treating ear diseases.⁴⁵ Saunders remained at the institution until 1809, when his health rapidly declined, presumably from his laborious efforts in the "dead room" where he likely picked up a fatal infection from a corpse. Cooper took over Saunders' duties in the Infirmary until a replacement was found. Saunders died at his home in Holborn in 1810, as no amount of bleeding by his mentor could lengthen his life.

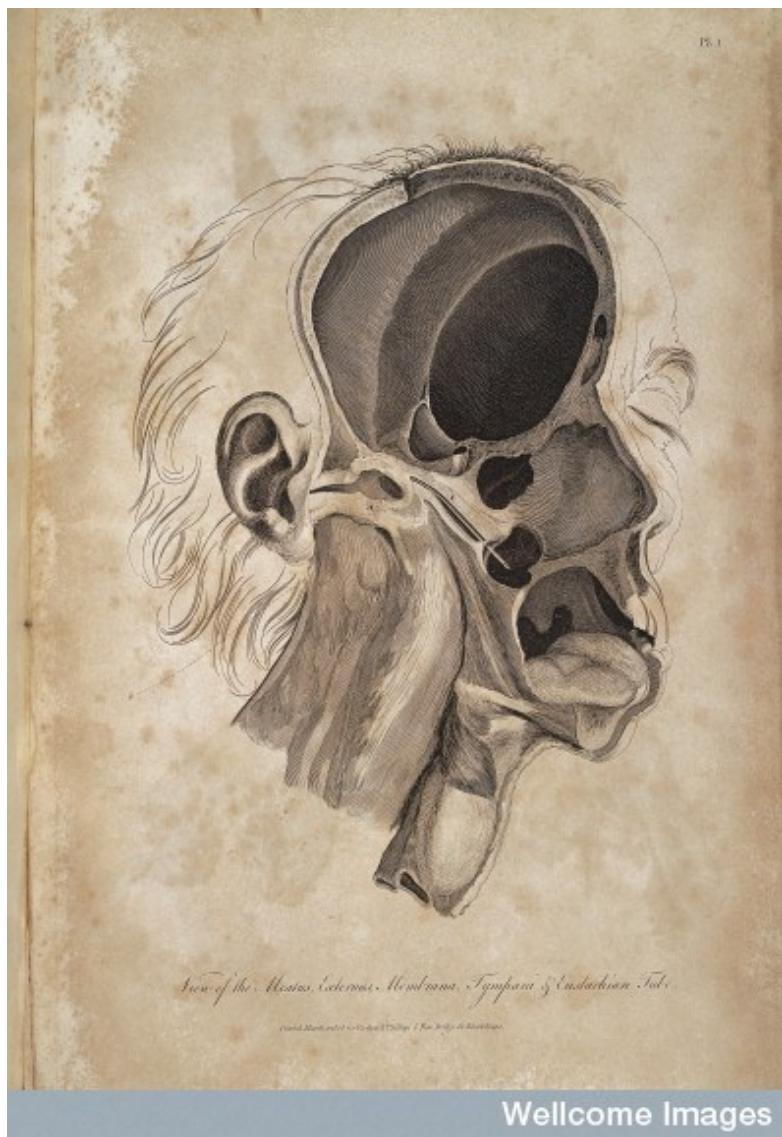
Curtis was well acquainted with Saunders' work, writing he had "always entertained a high respect for him as an able and talented practitioner, to whom the public and the profession were much indebted."⁴⁶ He had apparently met the surgeon following the encouragement of Dr.

⁴³ William Wilde, *Practical Observations on Aural Surgery* (London: John Churchill, 1853), 21. Also, J.R. Farre, *A Treatise on Some Practical Points Relating to the Diseases of the Eye by the late John Cunningham Saunders [and]...A Short Account of the Author's Life* (London: Printed for Longman, Hurst, Rees, Orme, and Brown, 1811).

⁴⁴ *The Lancet* no.171 (9 December 1826), 324.

⁴⁵ "Royal London Ophthalmic Hospital, Moorfields," *London Journal of Medicine: A Monthly Record of the Medical Sciences* vol.3 (1851), 579.

⁴⁶ John Harrison Curtis, *The Present State of Ophthalmology* (London: John Churchill, 1841), 5.



*Image 7: Anatomical illustration of the cranium and face revealing the external ear, the tympanic membrane (ear drum), and the Eustachian tube from John Cunningham Saunders's *The Anatomy of the Human Ear* (London: R. Phillips, 1804).*

Harness, an old friend of Dr. John Curtis, sometime in London; some scholars have also noted that Curtis was Saunders' student, and even possibly worked as his apprentice at Haslar.⁴⁷ Since Curtis

⁴⁷ Adam Politzer, *History of Otology: From Earliest Times to the Middle of the Nineteenth Century* (Columella Press, 1981); *Transactions of the Section on Laryngology and Otology of the American Medical Association* (1908).

was stationed at Haslar until 1810 when he was re-commissioned to Forton, and Saunders reportedly remained at his institution until his death, it's possible the two men crossed paths, but probably not enough to merit Saunders becoming Curtis' mentor. What is clear, however, is that Curtis looked to Sanders for inspiration—through Saunders' attempts to configure a specialized study for diseases of the ear, as well as his endeavours in constructing the London Infirmary.

The cases Curtis encountered at Halsar and Forton afforded him opportunities to observe how imperfections of the ear received meagre attention by medical practitioners. Not only were many treatments ineffective in relieving the affliction, but the ear was often mistreated in the pursuit of care, at times even making the affliction worse before it got better, if at all. A great number of cases, Curtis claimed, were simply misdiagnosed, and deemed incurable when it was highly likely hearing was salvageable.⁴⁸ As he would spend his career proclaiming, "hearing is *only impaired, not lost*," and the real problem with treating ear diseases stemmed from the fact that there existed no consensus among medical practitioners as to what constituted as proper treatment, classification, or even method for treating, let alone curing, deafness.⁴⁹ "Deafness" in the early nineteenth century remained an umbrella term applied to a variety of ear ailments and degrees of hearing loss, despite some attempts to classify its causes. Moreover, treatments were largely those devised in the eighteenth century, with little or no modifications made to certain surgical procedures. Even Saunders, who was well-respected as an anatomist, did not provide any major contributions in either diagnosis or treatment of deafness.

Recognizing the precarious state of aural surgery following Saunders' absence, Curtis suggested that aural surgery needed to define itself as a specialty. Just as with dentists and oculists

⁴⁸ John Harrison Curtis, *A Treatise on the Physiology and Diseases of the Ear*, 4th edn (London: Thomas & George Underwood, 1826), xxvi.

⁴⁹ Curtis, *An Introductory Lecture*, 16.

"who have both become a branch with numerous and respectable body of practitioners and with greater public benefit," so too, must aural surgery advance and make itself "a separate study...in order to render practitioners equally conversant in the treatment of the diseases of this intricate organ, as in other parts of the body."⁵⁰ A student who devotes himself to a specialty, he declared, would then better understand the subject of his choosing, and "he will be able to improve it by a comparison and illustration of it with the other branches he has studied, and make them all bear on this favourite or leading topic."⁵¹ More so, specialization would allow practitioners to concentrate on making new observations with regards to disease symptoms and physiology, which in turn could encourage them to challenge ineffective established remedies and thus, develop newer approaches for treatment.

For instance, in 1819, Curtis published a short paper outlining his disagreement with Saunders' stance on the treatment of puriform discharges of the ear, a painful inflammation of the external auditory passage that resulted from boils or association with other diseases such as syphilis, measles, or scarlet fever. If left untreated, the discharge often leads to granulation tissue, leading to temporary or permanent deafness. At this stage, Saunders had expressively made it clear that hearing loss was incurable, and no remedy would restore the hearing loss. Curtis disagreed:

With all deference to so great a character, this I consider rather owing to his not having sufficiently varied his remedies and pushed them to the required extent from the real incurable nature of the malady. The injections used by Mr. Saunders I have found it also necessary to vary the combination of the ingredients much more than he had thought it

⁵⁰ Curtis, *An Introductory Lecture*, 4, preface.

⁵¹ Curtis, *An Introductory Lecture*, 9.

proper to attempt. It is only by an extensive experience that we get acquainted with what the ear or any other organ is able to bear.⁵²

To test Saunders' statements, Curtis claimed he had placed "every mode of practice to the test" in devising the treatment, at times adjusting Saunders' remedies, which were "generally too weak in the proportions of the ingredients employed." By modifying the ratio of the ingredients used for the treatment, Curtis explained it was possible to treat the "disagreeable and obstinate complaint," as illustrated by one of his cases:

Adopting my usual plan of not stopping the discharge hastily, I ordered a blister to be applied behind the ear, which was kept open for a fortnight: after which the patient used an injection of zinci sulphas; but this not appearing to have the desired effect, I had recourse to the argenti nitras, as recommended by Mr. Saunders in cases of this nature: the patient began by using ten grains in four ounces of water [as Saunders recommended], and I increased it to the extent of thirty-five grains, which completely healed the parts; and I had the farther satisfaction, at the same time, to find her hearing restored.⁵³

The point Curtis asserted was a simple one: diseases of the ear were curable, "where a proper plan of proceeding is preserved in." This, he observed, was an ongoing problem for practitioners, for the lack of specialized concentration on aural surgery meant that no precise studies were done on the ear and on various treatments, especially with Saunders'—and Cooper's—detachment from the field. Specialized examination, care, and treatment for all ear diseases was the key, Curtis insisted, by which deafness could be cured and aural surgery could flourish as a specialty.

⁵² John Harrison Curtis, "On Puriform Discharges of the Ear," *The London Medical Repository, Monthly Journal, and Review* vol.11 (1819), 102

⁵³ Curtis, "On Puriform Discharges of the Ear," 104.

FROM KENT TO LONDON

As the war ended, a large number of medical practitioners faced unemployment as the medical market was soon flooded with intense competition from newly discharged military and naval surgeons.⁵⁴ After Curtis was dismissed from his post at Forton on November 3, 1810, he settled in Ightham Court, Kent. A year later, on 3 December, he married Sophia Maria Newman, a relation of Colonel James of the West Kent militia and one of the Receivers Generals.⁵⁵ A protégée of Mrs. James, Sophia Newman was apparently a woman with close aristocratic ties that would later prove fruitful for obtaining the necessary connections and patronage to support Curtis' career. While in Kent, sometime in the early 1810s, Curtis took a tour of the Continent, to become familiar with aural surgery as practiced in different countries. According to Curtis, these meetings with French and German surgeons provided him with valuable instruction into the practice of aural surgery, different techniques, and a variety of improvements for assisting defective organizations of the ear.⁵⁶

Curtis wrote earnestly about his experiences in France, Germany, Holland, and Belgium, and of his amazement of the diverse means by which aural surgery was studied and understood before being applied in practice in various medical institutions. In *A Treatise on the Physiology and Diseases of the Ear*, first published in 1817, Curtis stressed the importance of understanding a field's history, in order to assess in which areas a practitioner could improve the art, if needed. He presented the reader with a through history of aural surgery's early developments in Britain,

⁵⁴ Christopher Lawrence, *Medicine in the Making of Modern Britain 1700-1900* (London & New York: Routledge, 199), 33.

⁵⁵ "England marriages 1538-1973," FamilySearch.org. A Receiver General is responsible for collecting payments such as taxes or fines, owed to the Government.

⁵⁶ "Memoir of John Harrison Curtis, Esq.," *The European Magazine*, 292.

looking at the work of surgeons Jonathan Wathen (c.1728-1808), Archibald Cleland (c.1700-1771), and others, and turning to its respective developments in France. Curtis appeared particularly impressed with development on treating the tympanic membrane and Eustachian tube were made at *the Institution Nationale des Sourds-Muets*, where surgeons Jean Gaspard Itard (1774-1838), Antoine Saissy (1754-1822), and Nicolas Deleau (1797-1862), merged aural surgery with experimentation and education in the attempts to objectively define deafness.⁵⁷

The work of the French surgeons demonstrated to Curtis the importance of defining and diagnosing between various types of deafness. Practitioners often associated deafness with mutism by virtue of an anatomical link between the ears and the pharynx (see Chapter Three). Itard's work revealed this was not always the case and that by cross-referencing commonly held ideas about deafness—loss of hearing, mutism, lack of communication—with a medical diagnosis confirming a structural or physiological defect, aural surgeons could apply proper treatments to cure the affliction. There was no “cure-all” treatment, since deafness was varied in degree and in kind. However, with proper medical diagnosis, deaf or deaf-mute became “a person afflicted with a reversible condition that one could define, isolate, and hence cure.”⁵⁸ Curtis urged British aurists to adopt the French approach to diagnosis and treatment, explaining it was a necessary step to defeat the “popular prejudice” against the incurability of deafness. He elaborated this view in one of his 1818 lectures delivered at the Royal Dispensary:

⁵⁷ Anne Quartararo, *Deaf Identity and Social Images in Nineteenth-Century France* (Washington, D.C.: Gallaudet University Press, 2008).

⁵⁸ Nicolas Mirzoeff, “Framed: The Deaf in the Harem,” in *Deviant Bodies: Critical Perspectives on Differences in Science and Popular Culture*, eds., Jennifer Terry and Jacqueline Urla (Indiana: Indiana University Press, 1995), 57.

This popular prejudice, I am endeavouring to combat, may be considered as one cause that impedes the progress of medicine, for it prevents patients applying to the practitioner on the commencement of a malady,—the idea of nature curing disease in general, through proper to be entertained to a certain length by a professional character, should be opposed as a general opinion, from conveying a want of confidence in a science, which is justly considered as the most useful.⁵⁹

The problem with this popular prejudice was that it barred aurists from experimenting with newer treatment methods and threatened the value of aural surgery in Britain, as comparable to the French and German institutions. Moreover, the prejudice increased the likelihood that deaf children who were not otherwise really “deaf” were forced into isolation and “doomed to perpetual silence and hopeless despair,” as Curtis claimed was the case in the London Asylum.⁶⁰ For British aural surgery to advance in any fruitful direction, he insisted that the popular prejudice must be defeated by aurists willing to explore more effective means for diagnosis and treatment of deafness. Curing a great number of cases would be sufficient to demonstrate the utility of a specialized field, and to give more credence to the notion that many cases of deafness were just misdiagnosed.

To defend and expand on his views, by 1816, Curtis decided to return to London and resume his studies and establish a practice.⁶¹ Moving to fashionable Soho, Curtis focused his career on providing specialized care for various aural ailments. Built during the reign of Charles II, Soho was commonly referred as “petty France” until the 1840s on account of the high presence of French inhabitants fleeing revolutionary terror and settling within the area; only Regent Street separated Soho’s highly cosmopolitan atmosphere from the high-society residents of Mayfair, many of whom resettled from Soho in the eighteenth century. The absence of nobility within the

⁵⁹ Curtis, *An Introductory Lecture*, 18.

⁶⁰ Curtis, *A Treatise on the Physiology and Diseases of the Ear* (4th edition), 161.

⁶¹ Curtis, *An Introductory Lecture*, 9.

area attracted a wave of unorthodox, non-establishment, revolutionary populations, earning Soho a notorious reputation for its seedy clubs, eroticism, and prostitution.⁶² As a vibrant and convivial atmosphere that encouraged individual creativity and entrepreneurship, Soho effectively became “somewhere to take risks, to challenge orthodoxy,” creating an ideal setting for newly established medical practitioners for their commercial and charitable enterprises.⁶³ This was perhaps the ideal place for Curtis to establish his practice and open the doors to The Dispensary for Diseases of the Ear in 1816, located on Carlisle Street, next to Soho Square, in a four-story brick house, four stories wide and with a plain front. This was the institution from which Curtis began to his theories about treatments for deafness, experiment with new hearing instruments, and build a reputation for himself as a devoted and disciplined practitioner of aural surgery.

THE NEWLY APPOINTED AURIST

Diseases of the ear, Curtis stressed, have “seemed to be numerically unimportant, and, if not entirely overlooked...they have been too often considered as incidental objects, and their treatment confided to ignorant and empirical hands.”⁶⁴ Evidently, there were no reservations about Curtis’ ultimate agenda: he aimed to use every exertion to remove the “prejudices unhappily entertained in respect to this class of diseases being incurable,” in order for aural surgery to flourish and deafness to stop being neglected by medical practitioners.⁶⁵ With a mind that was

⁶² Nick Black, *Walking London’s Medical History* (London: The Royal Society of Medicine press, Ltd., 2006), 108.

⁶³ Black, *Walking London’s Medical History*, 108.

⁶⁴ John Harrison Curtis, *A Clinical Report of the Royal Dispensary for Diseases of the Ear* (London; Longman, Rees, Orme, Brown, Green, & C., 1832), 4.

⁶⁵ “John Harrison Curtis, esq.,” in *Authentic Memoirs*, 536.

"remarkably self-reliant" and with "great natural shrewdness," Curtis announced his practice as an aurist with the publication of pamphlets and advertised in several circulars.⁶⁶ Tales of successful treatments at 20 Carlisle Street, which served as both Curtis' residential dwellings as well as his practice became well-known to London society. One such case, "an old lady of 60, whose hearing he restored so as to hear her watch tick, which she had not done for some years before," apparently brought a frenzy of people knocking on Curtis' door.⁶⁷

The tale eventually attracted the attention of the Prince Regent, who shortly after meeting Curtis, appointed him Aurist to his person in late-1817 and presented his Royal Patronage to the Dispensary. The institution was then referred to as the "Royal Dispensary for Diseases of the Ear," though an investigation of the use of the prefix "Royal" would emerge in 1903 after the institution began its incorporation with University College Hospital.⁶⁸ The National Archives records for the Royal Ear Hospital also lists the names of the institution as "Dispensary for Diseases of the Ear (1816-1822)" and "Royal Dispensary for Diseases of the Ear (1822-1920)," but numerous periodicals from as early as 1817 refer to the institution as "Royal Dispensary" and the title page of Curtis' *Treatise* also names himself as "Surgeon-Aurist" at the "Royal Dispensary for

⁶⁶ J.F. Clarke, "The Career of a Specialist: John Harrison Curtis, Aurist," in *Autobiographical Recollections of the Medical Profession* (London: J&A Churchill, 1874), 358-373; 358.

⁶⁷ "John Harrison Curtis, esq.," in *Authentic Memoirs*, 536.

⁶⁸ According to the archives at University College Hospital, Akers-Douglas, M.P., and Secretary of State for the House Department at Whitehall issued out a memo on July 27, 1903 stating that certain hospitals and institutions used the prefix irregularly, without obtaining any official Royal sanction or the records were lost. The Secretary of the renamed Royal Ear Hospital responded on August 3, 1903 saying that "The Charity __ received the Royal support of George IV and William IV & Queen Adelaide became patrons in 1837 and Queen Victoria became its patron on Dec [?] 5 1842 and at her death...the King [became patron] on the 18th April 1901." After several correspondences between the Home Office and the Royal Ear Hospital over evidence to support patronage, the President of the Royal Ear Hospital formally applied for the King's permission to continue the word "Royal" in the title of the institution, attaching a brief history of the institution in the application. On July 28, 1904, the King sanctioned the continuance of the word "Royal" for the Royal Ear Hospital. University College London Special Collections, Archives of the Royal Ear Hospital (UCH/MED/H/REH/3-4).



Image 8: Photograph of 20 Carlisle St., where the Royal Dispensary for Diseases of the Ear was once located. Photo dated c.1920s. University College London Special Collections, Archives of the Royal Ear Hospital (UCH/MED/H/REH).

Diseases of the Ear." Curtis also published one of his first lectures on the anatomy and physiology of the ear, noting in the title, "*as delivered 1816 at the Royal Dispensary for Diseases of the Ear.*" Likewise, advertisements for his lectures also direct subscribers to the "Royal Dispensary." It is for these reasons above it seems apparent that Curtis possibly received some informal patronage from the Prince Regent once he was appointed into the Royal Household, though the institution was perhaps not nationally recognized until its relocation to larger premises on 10 Dean Street, Soho.

In *The Royal Kalendar [sic]* of 1818, Curtis is listed as aurist to King George III and to the Prince Regent. However, he was not the only aurist employed within the Royal Household; William Maule also attended to the King as "Aurist-Operator."⁶⁹ The next year, Maule still remained at the service of the King, although Curtis expanded his services as "Surgeon-Aurist" to the Duke and Duchess of Gloucester. The household also brought additional services from William Wright, who attended to Queen Charlotte as "Surgeon-Aurist-in-Ordinary."⁷⁰ There is little evidence to argue that the titles of the aurists were anything else but a personal preference by either the aurists themselves or by the members of the royal family whose patronage they benefited from. In other words, there is no evidence that there was any hierarchy of treatment or surgical preference established by Maule, Curtis, or Wright.

Curtis' position at court received a substantial amount of attention. An anonymous poem, "Ode to the Newly Appointed Aurist" (1817) makes references to the Prince Regent's patronage to an aurist—Curtis—and ridicules both the miraculous claims of aurists to cure deafness, as well as the aristocratic fondness for fashionable remedies:

⁶⁹ *The Royal Kalendar and Court and City Register* (London; William Stockdale, 1818).

⁷⁰ *The Royal Kalendar and Court and City Register* (London: T.C. Hansard, 1819).

AURIST! no sincere is thine,
Millions on thee their hopes recline
In anxious expectations.
For if thy skill (and may it thrive!)
The R____'s patriot ear revive
Thou sav'st a sinking nation

And wond'rous will thy nostrum prove,
If it the Royal ill remove—
All others have miscarried;
Address oblique, remonstrance plain,
Petition urgent—but in vain—
His *deafness* all has parried.

The civic Aurists lately tried
Their skills, and all their art applied
With labour preserving;
But with “surprise and deep regret,”
They left their patient, in a pet,
Extremely *hard of hearing*.

Aurist! the fatal film remove!
And would'st thou claim thy master's love,
And own him for thy debtor,
Instruct him how, and when, and what,
‘Tis fit a Prince should hear—if not,
The less he hears the better.⁷¹

Curtis' position in court certainly heightened the fashionable status of aural surgery, as the Dispensary and Curtis both received favourable reviews in local periodicals. Many of the mentions of the Dispensary glorify the institution's charitable effort in dealing with a “unique class of disease” that left its poor sufferers lost and isolated from the goodwill of society and of God. Other mentions emphasize the attention that was being provided by a medical practitioner specializing in aural diseases. For instance, a subscriber wrote to the editor of *Gentleman's Magazine* in 1818:

⁷¹ Anonymous, “Ode to the Newly Appointed Aurist” (1817).

The Metropolis is justly considered as the seat of every improvement in Art and Science, and no less is it the seat of Humanity. The late Establishment of a Dispensary for the Diseases of the Ear will fill up that chasm which was alone wanting to complete the Charitable Institutions; and, by its being the superintendence of an eminent Physician, and Surgeon (Dr. John Sims and Mr. Curtis, Aurist to the Prince Regent,) it cannot fail to be attended without success.⁷²

Other periodicals marvelled at a case of a boy born deaf and dumb whose hearing and speech were restored at the RDDE, showcasing the “rapid improvement in the medical practice of the present day.” According to *The New Monthly Magazine*, “[t]he pathology of the ear, neglected till of late, has now attained a vast importance by the institution of a dispensary for its diseases; and the subject of deafness now taken up by the Royal College of Surgeons as the theme of their annual prize will tend to throw light on this interesting malady.”⁷³ Exclusiveness to a particular—let alone neglected—branch of medicine was what heightened favourable interest and commendations for both Curtis and the RDDE, for it expressed the notion that precise and careful care could only be provided by a well-trained specialist. “The only neglected branch of surgery which remained some time ago nearly untouched,” *The Atheneum* remarked, “is that which regards the ear and its operations. Mr. Curtis, aurist to his Royal Highness the Prince Regent, has, by taking up this branch exclusively, placed it on the same footing as the other divisions of surgical science, by instituting a school of practice.”⁷⁴ Since by 1820 the RDDE remained the only institution providing specialized care for deafness, it gained national prominence and marked Curtis as a respectable, skilled, and charitable practitioner.

⁷² *Gentleman's Magazine* vol.121 (May 1817): 424.

⁷³ *The New Monthly Magazine* vol.8 (October 1, 1817), 237.

⁷⁴ *The Atheneum; or Spirit of the English Magazines*, vol. 7 (April 1, 1820), 46.

10, DEAN STREET

The Royal Dispensary for Diseases of the Ear occupies a central place within the history of nineteenth century aural surgery. The institution not only bestowed the field its fashionable status, but also occupied a place at the intersection of medicine, charity, and social ideas of deafness. As London society congratulated Curtis on rescuing the neglected class of diseases from ignorance and empiricism, the institution's reputation grew more prominent. The location at Carlisle St. eventually proved too small for treating and housing the numerous patients that flocked to the institution daily. In the first year of its establishment, 364 patients were admitted, 89 of whom were cured, and 75 "relieved" of their maladies. By the end of 1820, the RDDE admitted 1,863 patients.⁷⁵ With increasing patronage and an increase in subscriptions, the institution soon found new dwellings at 10, Dean Street Soho-Square. Curtis and his growing family took up dwellings down the street, on 3 Soho Square, a short walk from the Dispensary.

A tremendous number of charitably-funded dispensaries were established in London from the late-eighteenth century; while many were "shoe-string operations" designed to advance the careers of practitioners in the London medical marketplace and fell as quickly as they were built, many of these institutions provided a practical benefit for the sick, as well an increase in social status for subscribers.⁷⁶ Subscribers were usually offered the right to recommend patients for treatment and eligible to vote in election of officers or members of the Board. The RDDE followed the same format, relying on subscriptions to maintain its day-to-day management and care. A subscriber contributed one Guinea per annum, entitling him to one patient for recommendation to the dispensary; two Guineas afforded two patients, and so forth. Ten Guineas made a Life

⁷⁵ Curtis, *A Clinical Report* (1832), 8.

⁷⁶ Rosenberg, "Social Class and Medical Care," 34.

Governor, reserving him the right to recommend as many patients as he desired. Payments were made to the Banking House of Sir William Curtis, Bart., & Co., Messrs. Barclay & Co., Messrs. Hammersley, William Cobbe, esq., and to John Harrison Curtis. Life Governors served on the Board of Governors as Vice-Presidents, having their name under the RDDE's list published in periodicals and in the Annual Reports immortalizing them as charitable men. The Annual Reports and List of Subscribers, however, were directed to encouraging the charitably-minded to donate to the institution, rather than to strictly demonstrate the medical value and benefits of the institution.⁷⁷

The Prince Regent, made King George IV in 1820, remained the RDDE's foremost patron; the Duke of Cumberland was also noted as patron by 1819. The Board of Governors not only recommended patients, but some, like the RDDE President, John Jeffreys Pratt (1759-1840), the first Marquess Camden, even oversaw the daily management of the institution's affairs. Curtis remained Director and Aural Surgeon. Twenty-one Life Governors became vice-presidents, including the physician William Babington (1756-1833), the surgeon Henry Cline (1750-1827), and, very briefly, Sir Walter Farquhar (1738-1819).⁷⁸ The 1827 *Clinical Report* lists several notable aristocratic men as Vice-Presidents: the Bishop of Salisbury, Marques of Strafford, Marques of Cleveland, the Earl of Surrey, Robert Peel, Sir Henry Halford, the most successful London-based physician at the time, Sir Astley Cooper and several other lords and nobles

The lists of the RDDE's benefactors included some of the most prominent and aristocratic people of London society. The Prince Regent, made King George IV in 1820, remained the RDDE's foremost patron; the Duke of Cumberland was also noted as patron by 1819. The Board of Governors not only recommended patients, but some, like the RDDE President, John Jeffreys Pratt

⁷⁷ Granshaw, *St. Mark's Hospital*, 26.

⁷⁸ *The Royal Kalendar, and Court and City Register for England, Scotland, Ireland, and the Colonies* (1819).

(1759-1840), the first Marquess Camden, even oversaw the daily management of the institution's affairs. In addition, several medical practitioners were affiliated with the RDDE.⁷⁹ Curtis remained Director and Aural Surgeon. John Sims (1749-1831) was the first consulting physician, a position that would later be filled by Sir Henry Halford (1766-1844) and Sir Matthew John Tierney (1776-1845).

In the 1827 *Clinical Report of the Royal Dispensary for Diseases of the Ear*, 170 subscriptions were listed, including from Curtis' father, Dr. Curtis, The Earl of Harewood, Sir Astley Cooper, and various other notable noblemen; the subscriptions for that year amounted to £761, s.440.⁸⁰ The largest benefactors were A.B. per Bonsanquett, Pitt, Anderson and Co., (£100); sermon collections at New Church, Marylebone (£100), St. George's Chapel, Albermarle Street (£27), and at St. Mary's Chapel, Grosvenor Square (£32). The Duke of Devonshire also subscribed £25 and Thomas Synodgrass, Esq., £21. These were tremendously notable sums, which only grew each year: the 1832 *Clinical Report* reveals subscriptions totalling to £996, s.497, the largest benefactors from sermon collections from St. George's (£36), Curzon-St. Chapel, Mayfair (£31), St. Martin's Church (£22). The large numbers from sermon collections reveals the extent to which the dispensary was not only alluded to as a charitable institution, but hints how both educators and medical practitioners maintained a paternalistic of the deaf through charitable endeavours.

London society praised the Dispensary and applauded Curtis for "having drawn attention to the fact that many cases of Deaf and Dumb, hitherto considered hopeless, admit of palliation

⁷⁹ Granshaw contends that it was characteristic of early-nineteenth century hospitals that practitioners spent little time in the hospital, a characteristic that was also reflective of the Dispensary. Granshaw, "The Rise of the Modern Hospital in Britain," 208.

⁸⁰ John Harrison Curtis, *A Clinical Report of the Royal Dispensary for Diseases of the Ear* (London: T&G Underwood, Fleet St., 1827).

and cure.”⁸¹ The “Prince of Ear Diseases,” as *The Family Oracle of Health* bestowed Curtis, “stands high, in a word, in his own department, as Sir Astley Cooper does in his,” offering to the poor and destitute public a much-needed service.⁸² Curtis’ contributions were also praised by the Board of Governors. At an 1818 meeting, a “vote of thanks was unanimously given to John Sims, M.D. F.R.S. the consulting Physician; also to J.H. Curtis, Esq. Surgeon to the institution.”⁸³ Curtis also personally solicited funds from prominent members of the aristocracy, often through the networks he established through his wife and his time in the Navy; fundraising literature were also used to project images of the dispensary as humanitarian institution.⁸⁴ For instance, in a 15 June 1818 letter to a Major Jones, he wrote: “Having applied to their Royal Highness’s The Duke and Duchess of Cumberland to be appointed aurist to their Royal Highness’s, I shall feel much obliged if you will have the goodness to inform me if their Royal Highness’s have signified their intentions to you.”⁸⁵ His efforts were eventually rewarded. In 1819, the Governors presented to Curtis “a superb piece of plate, as a token of the estimation they entertain of his professional abilities, and for his great attention to the patients placed under his care at that useful charity.”⁸⁶

⁸¹ *The Lancet* vol.11. (1829). The use of “palliation” suggests even relieving symptoms of deafness was better than leaving a patient deaf—i.e. without treatment,

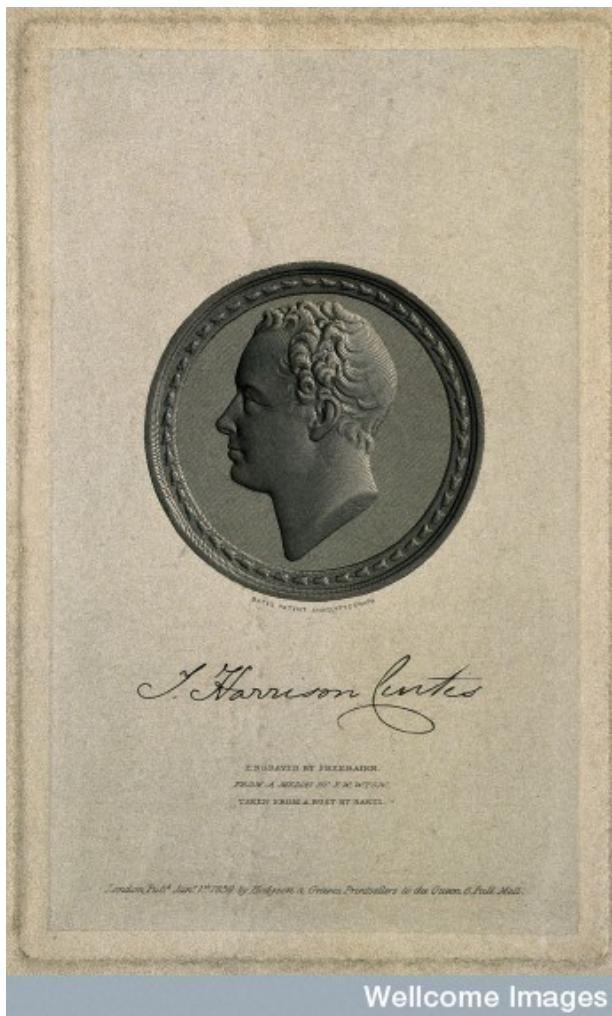
⁸² *The Family Oracle of Health*, 8. 329.

⁸³ *Belle assemblée: or, Court and fashionable magazine* (January 1818), 46.

⁸⁴ Bronwyn Croxson, “The Public and Private Faces of Eighteenth-Century London Dispensary Charity,” *Medical History* 41 (1997): 127-149; 130.

⁸⁵ Curtis to Major Jones (1818). Duke University Special Collections, David M. Rubenstein Rare Book and Manuscripts Library. With special thanks to Kate Collins.

⁸⁶ *Monthly Magazine and British Register* Vol. 47 (April 1819), 262.



Wellcome Images

Image 9: Profile bust of John Harrison Curtis, anniversary plate presented by the Governors of the Royal Dispensary for Diseases of the Ear. Engraving by A.R. Freebarin, after E.W. Wynn. Wellcome Library Iconographic Collection 738.2.

Other members of the RDDE also supported the fundraising campaigns, as indicated by a 1825 letter from George Whiting, secretary of the RDDE during the 1820s to General Sir William Henry Clinton (1769-1846):

I am directed by the Governors of the Royal Dispensary for Diseases of the Ear to enclose you a Prospectus of the Institution, and to solicit your support and patronage.

From the great success of the Institution, and from the increased number of Applicants, it has been found necessary to engage a more commodious situation for their reception, which will enable the Directors to extend their assistance and relief, in proportion as their Funds increase.⁸⁷

Thus, the RDDE was not only praised for its charitable attempts at treating the deaf population, but with its numerous subscriptions and Vice-Presidents composed of lords and noblemen, it became constructed as a fashionable addition to London society.

Despite the fashionable status the RDDE obtained, to Curtis, the institution was established to serve two ultimate objectives. The primary objective was to provide charitable care, the “relief of the industrious poor from a class of diseases to the last degree painful and inconvenient, and often neglected, if not generally misunderstood.”⁸⁸ This was imperative, for the RDDE, as Curtis overly emphasized, was *not* the first institution in England providing treatment for deafness, though it was the first devoted *solely* to ear disease and recognized on a national scale. Modeled upon Saunders’ London Dispensary, the Dispensary for Diseases of the ear initially raised concerns about its medical value and practical benefits. As Curtis explained, “when the measure of its establishment was first undertaken, apprehensions were entertained as to its durability, more on account of the failure of a similar one than from doubts as to the necessity and propriety of the measure itself.”⁸⁹ Indeed, the Dispensary filled a niche in the market for aural treatment, which was left empty by Saunders’ 1809 decision to leave aural surgery, as Curtis elaborated:

With regards to Mr. Saunders, it may be proper to add, that his scientific and ingenious endeavors to draw attention to the study and practice of Acoustic Surgery were not met with such inadequate encouragement that he shortly found it expedient to relinquish this

⁸⁷ George Whiting Letter to Sir William H. Clinton (1825). From the private collection of Bob Ruben.

⁸⁸ Curtis, *Clinical Report* (1827), 2.

⁸⁹ Curtis, *Clinical Report* (1827), 3.

branch for the more lucrative of the Oculist. Acoustic Surgery seemed now again to be abandoned, and the necessitous poor to be left alone to their fate.⁹⁰

Since diseases of the ear had largely been overlooked by medical practitioners, with the ears “too often considered as incidental objects, and their treatment confided to ignorant and empirical hands,” Curtis stressed that a specialized institution would not only benefit a particular class of sufferers, but the medical community as a whole as well. So with Saunders’ departure, it was more imperative than ever that an institution continued to practice aural surgery.

The second objective of the RDDE was “to show that diseases of the ear, like diseases of other organs, if properly studied and judiciously treated, are by no means of so incurable or manageable a nature as it has been too much the custom to suppose—an opinion, the prevalence of which has been productive of considerable mischief.”⁹¹ It was to be used as an institution for clinical study of aural diseases as well as a place for experimentation and advancement in treatments. In so doing, it was likewise a practical school of instruction, as evident from a series of introductory lectures Curtis delivered at the RDDE in 1816, to argue for the separate study of aural surgery as well as to train practitioners in the art.⁹² He offered a “Plan of Lectures” in four stages: Lecture One was an introduction into aural surgery and the diseases of ear; Lecture Two covered the anatomy of the human ear; Lecture Three the physiology and use of the different parts of the ear; and Lecture Four outlined the diseases of the ear and their treatment. A single course cost 2 guinea; 2 courses, 3 guinea; perpetual series 5 guinea. A student could also attend practice

⁹⁰ Curtis, *Clinical Report* (1827), 4.

⁹¹ Curtis, *Clinical Report* (1832), 12.

⁹² John Harrison Curtis, *An Introductory Lecture, as Delivered 1816 at the Royal Dispensary for Diseases of the Ear* (London: W. Clowes, 1818).

at the RDDE to observe the treatment of patients as well as to practice his skills: 3 months service was 5 guinea, 6 months 8 guinea, and 10 guineas allowed for perpetual placement.⁹³

INSIDE THE DISPENSARY

Before patients were admitted into the RDDE, they needed to obtain a recommendation from either a consulting physician, from the medical officers of the dispensary, or from one of the Governors. The Governors could also nominate a candidate of their choice to be admitted for treatment. Patients were admitted between 9am-12pm, and accurate records were kept of their cases for presentation at the Annual Meetings of the Governors.⁹⁴ As little evidence as there is for the early workings of the RDDE, it appears that its original objective was to simply dispense treatment; however, by the 1830s, several beds were available for in-patient care. The 1832 *Clinical Report* particularly stressed the test of operation after sixteen years, a growth that enabled the Governors to intend enlargement of the present building to incorporate in-patient care, as soon as funds were available:

During that period it has been found of such unquestionable utility, that it has met with support fully answering to the demands that have been made in its behalf. Its efficiency has now, however, reached such a state of augmentation, that increased means of support are indispensable to extend its sphere of usefulness; for it is the intention of the Governors, as soon as the funds will allow, to enlarge the present building, in order to accommodate within its walls not only infant deaf and dumb patients, but also persons from the country,

⁹³ Curtis, *Introductory Lecture*. According to medical journalist James Fernandez Clarke (c.1812-1875), it's doubtful whether Curtis actually delivered the lectures, although he certainly published them. The lectures could also be viewed as advertisements used to draw patients and patronage to the RDDE. Clarke, "Career of a Specialist," 359.

⁹⁴ Highmore, *Philanthropia Metropolitana*, 255.

and others afflicted with deafness, or other diseases of the ear, who are destitute of a habitation in the metropolis.⁹⁵

The treatment of infant deaf and dumb patients was a considerable illustration of Curtis' understanding and picture of aural surgery. In his *Essay on the Deaf and Dumb*, he outlined the fact that many young children often go years without proper treatment for minor ear diseases, often being clumped as irremediable cases, an error, he insisted, that derived from the popular prejudice against the curability of deafness. Young children had the best chance of receiving full restoration of hearing, as the earlier the disease is caught, the more likely it could heal.

As Director and representative of the RDDE, Curtis fashioned himself a particular image of authority, as conscientiously captured by J. Shand's (*fl.* 1818-1820) portrait of Curtis. In this portrait, Curtis is seated in an armchair, intensely gazing at the viewer and holding in his hands an interrupted book. Two other books and a pile of papers lay on a table along with an ink and quill-pen providing a whiff of scholarly scent. As Ludmilla Jordanova has written, medical and scientific portraiture provide important means whereby the identity of the sitter is constructed, providing clues as to how the public viewed medical and scientific figures.⁹⁶ In this particular portrait, the artist has clearly provided noteworthy visual cues to allude to Curtis' distinctive traits, especially those described by Clarke. The portrait was also used to correspond the 1819 *European Magazine* bibliographic article of Curtis, with a stipple engraving by the printmaker Robert Cooper (*fl.* 1800-1836).⁹⁷

⁹⁵ Curtis, *Clinical Report* (1832), 3.

⁹⁶ Ludmilla Jordanova, *Defining Features: Scientific and Medical Portraits, 1660-2000* (Reaktion Books, 2000).

⁹⁷ "Memoir of John Harrison Curtis, Esq." *European Magazine and London Review* vol.75 (April 1819), .290.



Image 10: Portrait of John Harrison Curtis. Stipple engraving by R. Cooper, after J. Shand, 1819. Wellcome Library Iconographic Collections ICV No.1593.

Two significant interpretations can be drawn from the portrait regarding Curtis' need to promote an authoritative self-image for himself. In the first place, pertaining to Jordanova's view, creating an authoritative identity would have given Curtis an advantage in the medical marketplace, subtly forcing patients to choose him and his speciality above all other options available—that is, the notion of self-fashioning as a justification for authority and identity, especially a masculine identity.⁹⁸ As practitioners and specialities were often identified with their institutions, the portrait would have provided a strong sense of respectability for both the Dispensary's medical and surgical efforts and Curtis' own career as an aurist.⁹⁹ As Stephen Jacyna points out, it is the functional criterion of a practitioner that ensured his reputation and distinguished him from the competition.¹⁰⁰ Jacyna continues to add that "patients were drawn to a particular practitioner because of his reputation for specialized knowledge in some particular department of medicine," a claim that is surely reflected in Curtis' need to associate his identity with that of the Dispensary, as well as to ensure prospective clients recognized him.¹⁰¹

Secondly, the portrait also constructed Curtis' respectability as a gentleman, a favourable construction he needed to boost his position from just another low-status practitioner and forge proper social ties in high-society. As Christopher Lawrence points out, a practitioners' achievement was often measured in terms of his ability to attract high-paying and upper-class

⁹⁸ Delia Gavrus, *Men of Strong Opinions: Identity, Self-Representation, and the Performance of Neurosurgery, 1919-1950*, University of Toronto PhD Thesis (2011), 14.

⁹⁹ On the relationship between specialities and institutions during the nineteenth-century, see especially W.F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994).

¹⁰⁰ Stephen. Jacyna, "Medicine in Transformation: 1800-1849," in *The Western Medical Tradition 1800 to 2000*, eds. W.F. Bynum *et al.* (Cambridge: Cambridge University Press, 2006), 19.

¹⁰¹ Jacyna, "Medicine in Transformation," 19. On public recognition of printed images, see: Simon Morgan, "Material Culture and the Politics of Personality in Early Victorian England," *Journal of Victorian Culture* 17.2 (2012): 127-146.

patients, more so than making original contributions to the field.¹⁰² A carefully crafted image of gentility could appeal to these patients. As J.F. Clarke described, Curtis was quite particular about his own self-image:

His hours for consultation were between 11 and 2. He would not see a patient five minutes before 11 or five minutes after 2; and this practice he carried on even to the last—to a time, indeed, when he literally “wanted a guinea.” He never allowed a servant to hand him a letter or card except on a silver salver. He always saw his patients in full dress, *temp. George IV.* His make-up was perfect. His hair was curled; his coat blue, with bright Wellington buttons; a white waistcoat, and black continuations, silk stockings and pumps.¹⁰³

This aura of self-assurance also appears to be intimidating for patients seeking out the “great aurist” whose income generated upwards of £5000/year. An anecdote by a Reverend J. Richard about his “deaf and nervous friend” best demonstrates this intimidation. The friend was too timid to oppose or contradict an opponent, and said “yes” to everything or “no” everything, answering questions as he “conjectured the answer to be desired.” Hearing of Curtis and the RDDE, Richardson encouraged his friend to apply for a consultation. As Richardson narrated,

Mr. Curtis was a man who from long experience was able to form a correct idea of the character as well as the people who made applications for his service, and he soon discovered that the new applicant was not a very wise man. Mr. Curtis in his practice adopted rather the vigorous energy by which Dr. Radcliffe was distinguished than the persuasive lenity with which modern practitioners in nervous cases are accustomed to

¹⁰² Christopher Lawrence, “Incommunicable Knowledge: Science, Technology and the Clinical Art in Britain 1850-1914,” *Journal of Contemporary History* 20.4 (Oct. 1985), 503-520; Christopher Lawrence, “Still Incommunicable: Clinical Holists and Medical Knowledge in Inter-War Britain,” in Christopher Lawrence and George Weitz (eds), *Greater than Parts: Holism in Biomedicine 1920-1950* (New York: Oxford University Press, 1998), 94-11.

¹⁰³ Clarke, “Career of a Specialist,” 366.

treat fine ladies and gentlemen [i.e. in reference to the list of questions]. He took patients by storm rather than by protracted advances, and in the case of my deaf and nervous acquaintance, he came in contract with the man who was of all others least calculated to withstand his robustness.¹⁰⁴

The practice at the RDDE was to employ rigid criteria for examining patients, a move that Curtis deemed would be beneficial for the aurist to properly diagnose an ailment and employ the most effective treatment. Examination began with a series of questions Curtis drew up in accordance with the plan of his friend Dr. Schmaltz of Dresden; he intended the questions to assist his correspondence with distance patients in order to possess a full and detailed history of their ailment, but as evident from Richardson's anecdote, Curtis also used some aspects of the questions in his daily practice.¹⁰⁵ Richardson described the experience of his friend at the appointment, supposedly as retold by the friend:

"[Curtis] seated the patient in a chair in which patients were placed during examination, and after various questions proceeded thus:--

'You hear what I say to-day better than you did yesterday?'

'Yes, sir.'

'You hear what I say without difficulty; don't you?'

'Yes, sir.'

'What's your name?'

'Yes, sir.'

'How old are you?'

'Yes, sir.'

The practitioner was growing irate, the patient was trembling with fear, he could hear nothing, but concluded that his safety depended on the acquiescence of his responses. The

¹⁰⁴ J. Richardson, *Recollections, Political, Literary, Dramatic, and Miscellaneous of the Last half-Century*, Volume II (London: C. Mitchell, 1856), 290.

¹⁰⁵ On medical consultations by post, see: Marco Bresadola, "A Physician and a Man of Science: Patients, Physicians, and Diseases in Marcello Mapighi's Medical Practice," *Bulletin of the History of Medicine* 85.2 (2011), 193-221.

practitioner was resolved not to be so easily satisfied; he pulled out his watch, and held it to the ear of the patient.

'Do you hear that watch tick?'

'Yes, sir.'

'That's a d___d lie, for it doesn't go.'

The patient, though he could not hear the words of Mr. Curtis, was aware something was wrong. He got out of the chair and out of the house as fast as he could, and never troubled the owner of them again with his presence."¹⁰⁶

Whether or not other patients encountered the same experience, it is not clear; but the encounter does illustrate the divide between practitioners attempting to objectively define a disease and the vulnerability of the deaf patients who were limited in articulating their subjective experiences.

FASHIONABLE AUTHORITY

Roy Porter has remarked that medical specialities have often become identified with their institutions, as the modes of treatment provided by the institution could essentially become the standard by which other specialist practitioners would adopt for themselves.¹⁰⁷ A year after the RDDE opened, Curtis published his first work, *A Treatise on the Physiology and Disease of the Ear*. The *Treatise* set the foundation for Curtis' reputation as an aurist, outlining his knowledge in the field as well as setting guidelines for nosology and treatment of various ailments. Divided into three sections, the *Treatise* provides an account of the anatomy of the ear, a classification of diseases of the ear, and Curtis' applications of various treatments and methodology, supported by several case studies. Classifying diseases of the inner ear as constitutional and local, Curtis pointed

¹⁰⁶ Richardson, *Recollections*, 291-292.

¹⁰⁷ Porter, *The Greatest Benefit to Mankind: A Medical History of Humanity* (New York & London: W.W. Norton & Company, 1997), 386.

out local diseases frequently depended on structural changes in the ear, thus were more common in growing children. Since Curtis' classification of diseases of the ear was largely built upon the work of his predecessors, resultantly, he added nothing new to aural surgery. His entire section on the tympanum, for instance, appears to have been copied entirely from Saunders' *Anatomy*:

Saunders, 'Of the Diseases of the Tympanum:'

"The first disease of the middle part of the Ear which I shall endeavour to investigate, is the puriform discharge from the Tympanum. The disease is ichorous, sometimes tinged with blood, and imparts a yellow color to a silver instrument. This disease is attended with a loss of hearing proportionate to the injury which the machine of the Tympanum has sustained, and the sense is variously impaired from the slightest degree up to total deafness."¹⁰⁸

Curtis, 'Diseases of the Tympanum:'

"The first disease of the tympanum is that named, from its leading symptom, its "Puriform Discharge," which has been accurately and minutely described by Mr. Saunders. The appearance of this discharge is ichorous, and it is sometimes tinged with blood;--if a silver instrument is stained with it, it will turn a yellow color. A loss of hearing naturally attends this disease; and the degree of this loss is proportioned to the injury the machinery of the part suffers—in some cases amounting to total deafness."¹⁰⁹

There are clearly stark similarities between the two passages. Rumours even circulated that Curtis employed a ghostwriter for his *Treatise* and the chapter on the tympanum was copied considerably from Saunders' *Anatomy*—a claim that Curtis somewhat corrected, in the second edition of the *Treatise*, noting that diseases of the tympanum "has been accurately and minutely described by Mr. Saunders," but nevertheless still followed the same structure and explanation as outlined in *Anatomy*.¹¹⁰ While it appears Curtis was most likely acknowledged Saunders and his work, the language and context of the passages obviously made it difficult for other aurists to

¹⁰⁸ Saunders, *An Anatomy of the Human Ear*, 28.

¹⁰⁹ Curtis, *Treatise* (1817), 31.

¹¹⁰ John Harrison Curtis, *A Treatise on the Diseases of the Ear*, 2nd Edition (1819).

bypass the issue of plagiarism, thus damaging Curtis' stellar reputation. Clarke also noted that Curtis "kept" an author who was secretly employed to write Curtis' publications during the early years of his practice; he also suggested that Curtis' lectures, which earned Curtis a reputation of a "man of science and education," were probably written by the medical writer Dr. George Hume Weatherhead (c.1790-1853). These rumours, however, did little to quell the success of Curtis' *Treatise* and the popularity of the RDDE.

The *Treatise* outlined several treatment methods incorporating mixtures as nostrums or emetics for syringing out the ear, which Curtis hoped would be adopted by other aurists. A compound of Calomel pill and ointment made of equal parts of Nitrated Mercurial Ointment and Hugi Lard was advocated for herpetic eruptions as an astringent injection. The same combination with an ointment of zinc was advocated for ulcerations in the ear; sulphate of zinc was also to be used for puriform discharge. Curtis recommended minor surgical procedures: extraction of polypus with a forceps, and an application of *Argentum Nitratum* for puriform discharge with a polypus—a similar remedy that was advocated by Saunders. Blisters placed behind the ears with an injection of nitrated silver could treat puriform discharge. Nervous deafness could be treated with doses of Submuriate of Mercury and doses of Vitriolated Mercury. In addition to blistering, seton on neck, mercury, sulphate of magnesia and a strict antiphlogistic regime was beneficial for nervous deafness as well as for noises in the head (tinnitus). Curtis also mentions puncturing the tympanic membrane for obstructions in the Eustachian tube.

Along with the various treatment procedures, Curtis highlighted several case studies from the RDDE to demonstrate the success of the procedures. His main method of treatment was syringing, using a large syringe to drain excess fluid; in most of the cases he outlined, this seemed to relieve the patient from the affliction. Continuously referring to his treatments as "the usual

means,” “the method,” “gentle emetics,” “astringent injection,” “application of the syringe,” among others, Curtis claimed “the number of cases of incipient nervous deafness, which I have successfully treated, only convinces me, that if early attended to, they are more easy of cure than is generally imagined.”¹¹¹ Save for syringing to drain out cerumen, Curtis generally avoided intensive surgical remedies, arguing that without any apparent defect in the mechanism in the external or internal ear, it was difficult to ascertain what the cause was—“for, on examination, every part has appeared perfect, even the nerve and its expansion displaying no trace of morbid change; the alteration, whatever it was, being too minute for the knife or the eye to detect.”¹¹² The case studies showcased Curtis’ skill as an aurist as well as his specialized knowledge of aural surgery. Additionally, they also publicized the benefits of the RDDE, which, like other charitable institutions of the nineteenth century, relied on subscriptions in order to maintain its daily operations.

Jonathan Barry and Colin Jones have discussed how relationships between medicine and charity often take a cyclical, rather than linear, form. Charities offered important opportunities to practitioners both for building new types of care as well as for forging their individual and collective reputations.¹¹³ The RDDE treated patients from all walks of life as a charitable institution, but it was also a place for Curtis to test out his theories on aural surgery and apply newer and perhaps more effective treatments to counteract the popular prejudice. In short, it was an institution that not only expressed the value of aural surgery as a specialty, but in so doing, it reconstructed an image of deafness as being curable, and hence, requiring medical and social intervention as opposed to education and asylum. In his *Cases Illustrative of the Treatment of*

¹¹¹ Curtis, *Treatise*, 201.

¹¹² Curtis, *Treatise*, 154.

¹¹³ Jonathan Barry and Colin Jones, *Medicine and Charity before the Welfare State* (London & New York: Routledge, 1991), 2, 9.

Diseases of the Ear (1822), Curtis explained that the popular prejudice, without a doubt, prevented patients from yielding to proper treatment; “but one great source of error, is,” he continues, “that patients are not sufficiently aware of the danger which is often connected with deafness.”¹¹⁴ Without pivotal care, symptoms are worsened to the point that the damage becomes irremediable—easily prevented if patients simply had access to proper care. These facts, Curtis argued, “are sufficient to show that deafness is not that simple and uncomplicated malady, too generally credited by popular opinion; on the contrary, it is to be received as the forerunner of serious mischief, and should, with all persons somewhat advanced in life, be noticed with attention, and its cause particularly inquired into.”¹¹⁵ It is for these reasons, Curtis insisted, why the RDDE was valuable and why aural surgery needed to form itself as a specialty,

Cases Illustrative of the Treatment of Diseases of the Ear outlined fifty-eight of cases Curtis encountered at the RDDE, providing detailed descriptions of patient symptoms, diagnosis, and the means of treatment. Although the veracity of these cases raised some doubt—William Wright, for instance, questioned whether the case patients even existed—the descriptions provide us with an interesting historical insight into the types of patients and symptoms that the RDDE encountered on a daily basis, particularly Curtis’ stance on the necessity of minute examination, “in order to ascertain the cause of the defect, before offering any decided opinion.”¹¹⁶ Out of fifty-eight cases, thirteen described Curtis’ curing childhood deaf and dumbness; eleven were of nervous afflictions; eight of “violent” noises in the head (tinnitus); four cases of polypus requiring surgical removal. The remainder were of inflammations, herpetic eruptions, ulcers, puriform discharges, blockages

¹¹⁴ John Harrison Curtis, *Cases Illustrative of the Treatment of Diseases of the Ear, both Local and Constitutional, with practical remarks relative to the deaf and dumb* (London: T&G Underwood, 1822), 9.

¹¹⁵ Curtis, *Cases Illustrative*, 12.

¹¹⁶ Curtis, *Cases Illustrative*, 84.

from cold/flu, insects, hardened cerumen (ear wax), tonsils, or structural obstructions in the Eustachian tubes. There were also cases of accidents or abuse, including damage done by another practitioner, and effects of loud explosions from the war. Curtis' "plan" for restoring hearing in the deaf dumb usually followed a regimen of blistering behind the ear combined with "complete" syringing and a series of pharmaceuticals assigned over several weeks.

Some of the patients described are noteworthy, demonstrating that the RDDE catered to all degrees of patients from all classes of society. There's George Robinson, a man of color suffering from otitis (inflammation of the eardrum) whose "grotesque appearance" almost frightened patients in the waiting room. "Lady Y," whose ill-advised treatment of strong astringent for discharge nearly proved fatal, since in some instances stopping the discharge suddenly proved to be injurious. There were also some foreign patients: Annette Brun, a poor Frenchwoman; "Mr. N.," a gentleman resident in Ireland suffering from "strange noises" that left him melancholic; "Mr. V.," a native of Switzerland who was sent to the Leamington Spa after a 3-week course of treatment. Some civilian servants, including Thomas Smith, a private in the first regiment of horse guards whose problems with his digestive functions led Curtis to diagnose his deafness proceed from the "torpid and diseased action of...the liver" and treated with a gentle mercurial course. "Captain D." suffered with polypus in the left ear, but refused a surgical operation to remove it, so Curtis had to recourse to ligature as recommended by his naval training. There were also some unique cases; "Mrs. N." afflicted with nervous deafness and had been electrified and galvanized regularly every day for nearly six months before arriving to the RDDE; "Master P.," who became deaf following a blow from a ruler inflicted by an usher at his school; Thomas Nevenson, a carpenter who fell from a scaffold and was treated with leeches to deal with blood flowing from his ears; five-year-old "Miss P.," whose servant frightened her by leaving her in a cellar; the experience had such an effect

that the young girl became deaf and dumb, to which Curtis diagnosed as nervous deafness and treated as such. Perhaps most notably, the cases of 28-year-old Charles Vernon and James Butler, both of whom were previous pupils at the London Asylum on Old Kent Road, leaving Curtis "desirous of attempting relief" to prove his proposal about minute examination as explained in his 1817 letter (Chapter One).

The RDDE not only aimed at providing treatment for the poor and destitute populations, but also supplying acoustic instruments to those with severe hearing loss irremediable by medical treatments for a cost of seven shillings or free of charge.¹¹⁷ This was significant, for hearing instruments were largely confined to the gentry and aristocracy who could afford such extravagant devices. Curtis' stance on the social responsibility of the aurist encouraged him to become prolific in instrument design; taking into account new theories on sound and his own understanding of the physiology of the ear, he invented two modified trumpets. The first, a typical hearing-trumpet distinguished "chiefly for its great length, a circumstance that gives it a high degree of power and renders it much more serviceable."¹¹⁸ The second, a conical trumpet, was modeled after a telescope such that it was able to fold together and fit easily into the pocket. These trumpets were well-received by the public, who commended Curtis for servicing the needs of the deaf. One source even remarks that Curtis' conical trumpet is "well known to answer the purpose of extending the impression of sound, [and] seems entitled to a preference over all others."¹¹⁹ It was Curtis' Acoustic Chair, however, which earned him national status as an innovator. Introduced and described in the fourth edition of his *Treatise* in 1831, it was showcased as a large library

¹¹⁷ Curtis, *Advice to the Deaf*, 47.

¹¹⁸ Curtis, *Advice to the Deaf*, 49.

¹¹⁹ Robert Thomas, *The Modern Practice of Physic* (London: Longman, Rees, Orme, Brown, and Green, 1828), 739.

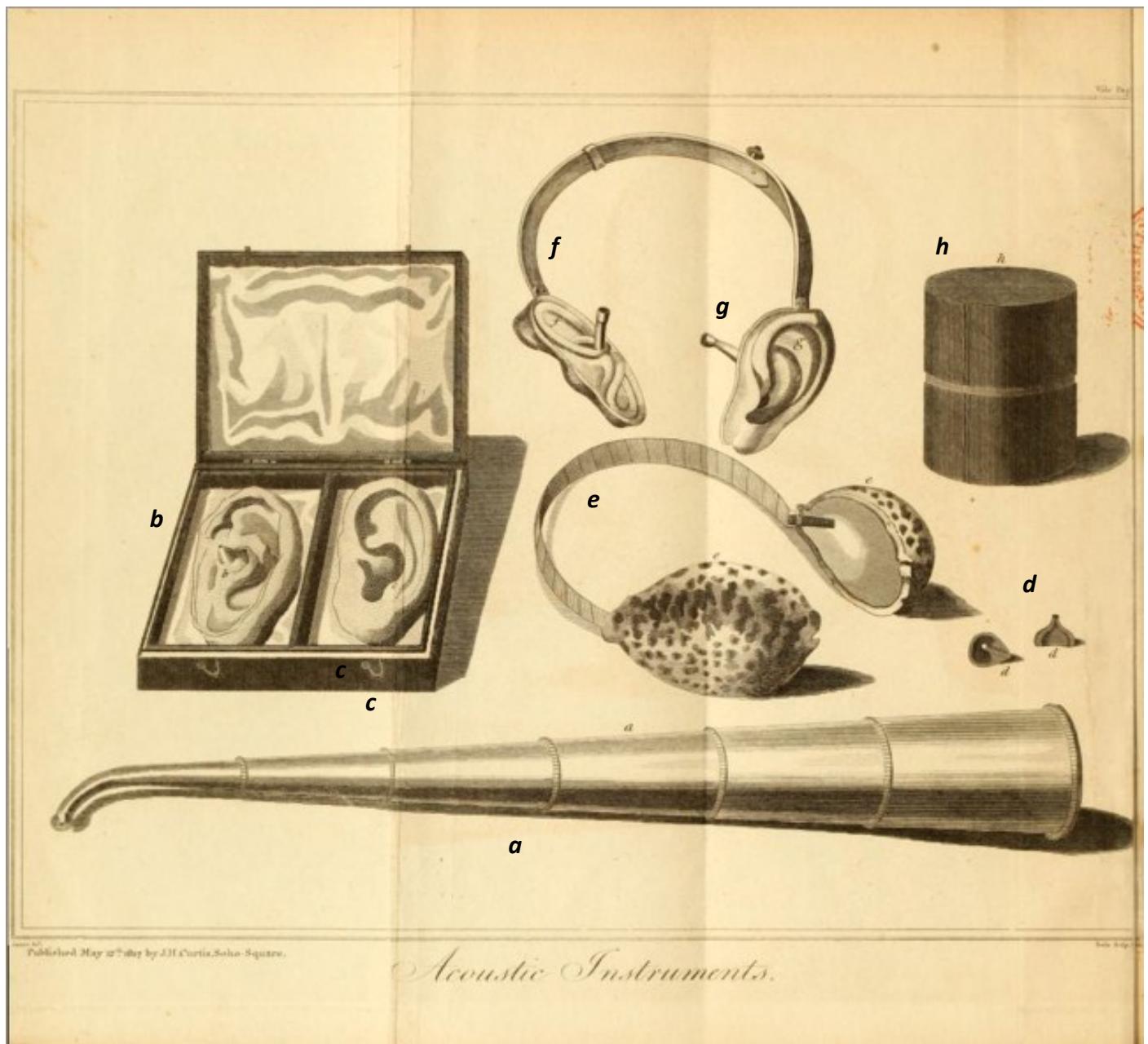


Image 11: Various acoustic instruments devised and/or marketed by John Harrison Curtis. From the frontispiece of his *Treatise* (1817): (a) Collapsible Hearing Trumpet (b) French artificial ears with gold tube, internal side (c) French artificial ears with gold tube, external side (d) the tubes (e) Spanish ears (f) internal part of German silver ear (g) external part of German silver ear (h) trumpet case.

**Mechanics' Magazine,
MUSEUM, REGISTER, JOURNAL, AND GAZETTE.**

No. 701.

SATURDAY, JANUARY 14, 1837.

Price 3d.

MR. CURTIS'S ACOUSTIC CHAIR.



AND TELESCOPE HEARING-TRUMPET.



VOL. XXVI.

Image 12: Frontispiece of the *Mechanics' Magazine* (1837) with Curtis' acoustic chair and telescope hearing trumpet.

chair affixed with a trumpet alongside the chair such that the user was able to hear sounds from the next room. The *Mechanics' Magazine* published an engraving of the chair in its frontispiece in 1837,¹²⁰ praising the beauty of the ingenious innovation, and a model of the chair was eventually placed at the Royal Polytechnic Institution and at Adelaide-Street Gallery.¹²¹

THE VALUE OF THE RDDE

Despite the initial success of the RDDE and the overwhelming support from subscribers, by the 1830s, the institution ran into some financial troubles. As evident from a receipt from a member of Prince Leopold's circle, Curtis requested some of his aristocratic patients to contribute annual subscriptions to ensure the RDDE could manage its daily functions.¹²² At the same time, the Governors still maintained the charitable objectives of the institution. For instance, on February 25, 1836, a resolution was proposed at a General Meeting of Governors that declared tickets for admission were to be sent to the Police Constables of the Metropolitan Police so that any officers or members of the Corps afflicted with deafness could be admitted gratuitously at the RDDE. In addition, "in acknowledging the advantage which has been derived by the greatest majority of cases of those of the Police and their families who have had occasion to apply for the aid of the Society," civic servants admitted free of expense without even a letter of recommendation

¹²⁰ "Mr. Curtis' Acoustic Chair," *The Mechanics' Magazine: Museum, Register, Journal, and Gazette* vol.26, no.701 (14 January 1837).

¹²¹ Curtis, *Advice to the Deaf*, 50; *The Mechanics' Magazine: Museum, Register, Journal, and Gazette*, vol.26, no.692 (12 November 1836), 112.

¹²² Letter from G. Ammerschuler (?) to J.H. Curtis (20 February 1837. University College London Special Collections, Archives of the Royal Ear Hospital (UCH/MED/H/REH/4/5).

included soldiers, sailors, and the police.¹²³ A small pamphlet containing a sermon preached in aid of the RDDE was also circulated with an introduction letter written by Henry Sheppard Smyth, the dispensary's secretary, who declared that a need was required to "awaken the sympathies of meek-eyed Charity."¹²⁴ Sermons were the most popular methods for persuading the people to be charitable. By convincing parishioners of the efficacy of an institution's national or social value, sermons were able to "speak in voices louder than their own," by articulating the hopes and motives of the charitable heart.¹²⁵

One sermon, preached by Reverend Richard Ponsonby of the St. Martin-in-the-Fields Church, urged the congregation to support their "dependent fellow-creatures."¹²⁶ Such support, the Reverend declared, is beneficial for "a class of human sufferers"¹²⁷ who "have no voice to speak their misery; and to the accents of friendship they are utter strangers."¹²⁸ Emphasizing that the dispensary represented the vast improvements made in aural surgery and the state of the deaf in society, Reverend Ponsonby argued support was necessary to evoke the Christian spirit of charity and duty:

To me indeed, it seems difficult to imagine any institution more entirely deserving of your support than which now implores it, whether you consider the wide extent of its influence, or the deplorable state of those whom it purposed to relieve. This humane establishment

¹²³ Letter from Colonel Rowan to Henry Shepard Smyth, 1838. British Library Ms 40499 f.192. Petition to Queen Victoria from the Governors of the Royal Dispensary for Diseases of the Ear, 1838. British Library Ms 404499 f.193.

¹²⁴ Richard Ponsonby, *A Sermon Preached...in aid of the Royal Dispensary for the Diseases of the Ear* (London: Published by J.G. and F. Rivington, 1834).

¹²⁵ Donna Andrew, "Two Medical Charities in Eighteenth-Century London: The Lock Hospital and the Lying-in Charity for married Women," in *Medicine and Charity before the Welfare State*, eds. Jonathan Barry and Colin Jones (London & New York: Routledge, 1991), 82-97; 83.

¹²⁶ Ponsonby, *A Sermon Preached*, 9.

¹²⁷ Ibid., 16.

¹²⁸ Ibid.

has been in existence for more than seventeen years, during which time it has *been found of unquestionable utility*; not confining its benevolent views to the inhabitants of the metropolis, but extending them generally throughout the country (original emphasis).¹²⁹

The fact that Ponsonby's sermon was printed and circulated clearly emphasizes the extent to which both the dispensary's patients and the wider public saw the importance of this institution in assisting those "who have no voice to speak their misery."¹³⁰ Ponsonby also reflected on Curtis' success in establishing the dispensary and drawing attention to the importance of aural surgery, while at the same time avoiding commenting on any questions about Curtis' skills: "In his presence I am naturally restrained from dwelling upon his merits: in an approving conscience, however, he will find the highest of all human rewards."¹³¹ Other sermons were preached to call attention to the importance of the RDDE, including one at St. Anne's Soho, by a Reverend H.G. White.¹³² These sermons were not just about the importance of curing deafness, but acknowledging the virtue of men to fund the RDDE based upon their Christian spirit and duty.

The fashionable and charity minded also attended charity bazaars, or *grand fête champétres* for raising money a charity of their choice.¹³³ Since numerous philanthropic institutions relied upon these events to support their annual funds, these events became quite popular during the 1820s, advertised frequently in daily newspapers as variants of the marketplace and as aspects of nineteenth-century entertainment.¹³⁴ However, as Prochaska notes, many smaller *fêtes* were likely spread not by newspapers, but by word of mouth or by church

¹²⁹ Ibid., 14.

¹³⁰ Ibid., 16.

¹³¹ Ponsonby, *A Sermon Preached*, 17.

¹³² *The Annual Subscription Charities and public Societies in London* (John Murray, 1823), 30.

¹³³ F.K. Prochaska, "Charity Bazaars in Nineteenth-Century England," *The Journal of British Studies* 16.2 (1977): 62-84; 62.

¹³⁴ Prochaska, "Charity Bazaars," 63, 72.

notices, or even in the columns of a parish magazine.¹³⁵ In the 1830s, an annual *grand fête champêtre* was organized by a women's group to be held in Mr. Jenkins' Grounds in Regent's Park in order to raise funds for the Dispensary as well as draw attention to the participation of the patrons. The event was heavily advertised in London's newspapers by Smyth and heralded as the



Image 13: "The Regent's Park: A Charity Fair for the Royal Dispensary." Coloured lithograph by M. Gauci, 1832. Wellcome Library Iconographic Collections, Ref.ICV No.14103.

¹³⁵ Prochaska, "Charity Bazaars," 67.

social event of the year.¹³⁶ The event was captured in a coloured lithograph by M. Gauci (*fl.* 1810-1846) in 1832, a gift to the “Ladies patronesses of the Royal Dispensary” by a William Franklin.

Other events were organized during the troublesome 1830s as well. In July 15, 1833 a charity concert was performed at Royal Gardens Vauxhall to raise funds. All sorts of songs, duets, trips, glees, and choruses delighted the audience.¹³⁷ Another *grand fête champêtre* held on Saturday May 27, 1837 distributed a slim card with the lyrics of an amusing song, “Paddy out of Hearing!”¹³⁸

The 1830s not only brought financial distress due to the growth of the institution and the need for more subscribers, but also the death of King George IV and a threat of loss of patronage. The newly crowned young Queen Victoria did things differently from her predecessor. Smyth petitioned on behalf of the Governors of the RDDE for continued patronage of the institution, stressing to Her Majesty that

The grounds on which we solicit for this favour are in its extensive usefulness to the poorer classes from the year 1816, in which it was established up to the present time, during which period it has been constantly enlarging the sphere of its usefulness, and because it is the only Institution in the Metropolis devoted exclusively to Diseases of the Ear at which persons afflicted with such Diseases are admitted free of expense, and Soldiers, Sailors, and the Police being admitted even without letters of recommendation.¹³⁹

The petition, which was also signed by the Governors, also explained that “[t]he best evidence of the extensive good which the poor have derived from the Dispensary, consists in the fact, that

¹³⁶ *The Literary Gazette*, vol.20 (1836), 333.

¹³⁷ *Songs, Duets, Trips, Glees, and Choruses, as sung in the Concert at the Royal Gardens, Vauxhall, on Monday, the 15th of July, in aid of the funds of the Royal Dispensary for Diseases of the Ear.* Manuscript, Wellcome Library.

¹³⁸ ““Paddy out of Hearing!” Sung at the Grand Fete Champetre, held Saturday 27 May 1837.” Pamphlet, Wellcome Library Medical Ephemera.

¹³⁹ Petition to Queen Victoria from the Governors of the Royal Dispensary for Diseases of the Ear, 1838. British Library Ms 404499 f.193.

since its institution upwards of ten thousand two hundred and forty patients have been admitted to its advantages, very many of whom have by its instrumentality been relieved from maladies which had incapacitated them from following their occupations." As evident from a letter Smyth wrote to the Earl of Harewood, the petition was not granted immediately, a response that led Smyth to urge Harewood to use his influence with another petition from the RDDE:

I am also directed to enclose a petition to her Majesty the Queen to honor the Institution with Her Royal Patronage, and to intrust your Lordship to use your influence with the Right Honorable Sir Robert Peel, to enforce the prayer of the petition, and to be pleased, to state that their Majesties George the Fourth and William the Fourth, Her Majesty the Queen Dowager, their Royal Highness the late Dukes of York and Kent, Her Royal Highness the Duchess of Kent, His Majesty the King of Hanover, His Majesty the King of the Belgia [sic] their Royal Highnesses the Duke and Duchess of Cambridge, as well as the principal nobility and Gentry of the country, and many men of science and professional celebrity have honoured the Institution with their patronage and support.¹⁴⁰

It is not clear whether Queen Victoria ever gave her official patronage following Smyth or Harewood's requests. As discussed earlier in this chapter, the question as to whether the RDDE obtained proper petition for its use of "Royal" in the title became a serious issue between the institution and the Home Office during the first few years of the twentieth century.

In 1823, it was reported upwards of 3,500 patients afflicted with deafness and diseases of the ear had been received, with a great percentage of them cured.¹⁴¹ The increasing numbers of patients being "cured" or "relieved" provided powerful weapons for Curtis to undercut the validity of the popular prejudice—if deafness, as expressed in the RDDE, was curable, then what grounds did educational asylums like the London Asylum have, for denying positions for aurists? Reviews

¹⁴⁰ Letter from Henry Shepard Smyth to Lord Harewood, 1841. British Library Ms 40499 f.191.

¹⁴¹ *The Annual Subscription Charities*, 31.

of the dispensary also highlighted the utility of the institution. For instance, Anthony Highmore expressed in his *Philanthropia Metropolitana: A View of the Charitable Institutions* (1822):

An unfortunate prejudice has prevailed that the diseases of the ear are generally incurable; but there is no foundation for this, more than in regard to the other senses, the diseases of which are every day relieved by proper medical aid. Those of the ear affect every rank of society; and to the lower classes, engaged in a variety of domestic and public occupations, deafness is an obstruction to their reception or success; and, as it increases, obliges them to lay aside their industrious calling, and causes their dismissal from employment. To obviate these evils, the Institution now before us combines every surgical aid of which the nature of the subject admits; and if the inconvenience cannot altogether be remedied, the patient is supplied, free of expenses, with such artificial means as have been found by experience useful in such imperfections.¹⁴²

While the RDDE did attract notice to the curability of deafness, its value was at time contested by other medical practitioners, who held reservations about the popularity of a specialist institution, for it disrupted the traditional status quo in medical practice.¹⁴³

William Wright, for instance, was severely critical about the methods that were employed within the institution. He described an incident in which a patient arrived to him after being treated at the RDDE, and Wright discovered, much to his horror, that the poor patient was treated with a dangerous solution of caustic.¹⁴⁴ He noted that his large house, which also served as his practice, was established at his own expense and thus warranted more good-will; many of his patients were unsatisfied patients at the RDDE, who did not obtain relief and turned to him for advice.¹⁴⁵

¹⁴² Highmore, *Philanthropia Metropolitana*, 356.

¹⁴³ Granshaw, "The Medical Profession and Specialist Hospitals," 206.

¹⁴⁴ William Wright, *On The Treatment of Deafness* (London: John Wesley, 1953), 21.

¹⁴⁵ Wright, *The Present State of Aural Surgery*, 75.

Perhaps to remedy what he viewed as ill-advised treatments, or to challenge Curtis' title as the "great aurist," in 1830, Wright applied for a petition for an "An Institution for the Relief of the Deaf and Dumb," to be founded on the "true principles of Surgical and Medical Science."¹⁴⁶ According to the petition, Wright argued his many years of service and the proven success of his safe and painless methods of treatment, as well as his labours in teaching the deaf to speak were enough to warrant his skills and expertise. He further elaborated the advantages such a government sponsored institution would have for the community at large, particularly those who were unable to afford the costs of treatment. In 1843, Wright reveals the answer he received from Parliament:

The answer I received from the Premier, at that period, was, that Government had no funds which could be so appropriated; and he thought it should be done by charitable individuals. There the matter has rested...and there probably it will remain, unless any wealthy and influential personage takes up the subject before it be too late, thereby immortalizing his name, and rescuing the poor and unfortunate from the hands of experimentalists, and itinerant *self-styled aurists*, who, having crept into the College of Surgeons, now disgrace that institution, by using the initials M.R.C.S., and by *false* recommendatory letters contrived to *dupe* and *injure*, the afflicted; also to prevent the Public from being *imposed* upon by *fabricated* statements of the *thousands pretended* to be *cured* at some *proprietary Dispensary*; by forming a school, wherein young men may be taught the reasonable principles and practices of aural surgery (original emphasis).¹⁴⁷

Clearly Wright bore some resentment towards Curtis, or at least the success of the RDDE in popularizing and securing Curtis' career.

¹⁴⁶ "Petition for an Institution for Relief of the Deaf and Dumb," *House of Commons Journal* 85 (6 April 1830): 267-274.

¹⁴⁷ William Wright, *Observation and Facts Relative to those born deaf, and consequently dumb* (London: William Strange, 1843)



Image 14: The Royal Dispensary for Diseases of the Ear at its location on the corner of Capper and Huntley Streets, where it moved in 1920 after becoming the Royal National Throat, Nose, and Ear Hospital (London, UK). The painting used to hang on a wall at the Royal Ear Hospital on Grey's Inn Road, London, but has since been removed and is part of the Royal Free Hospital Collections.

Photograph by the author.

Curtis' position in the RDDE and his role in popularizing the curability of deafness can also be seen against the backdrop of the wide variety of self-help options available during the nineteenth century. By emphasizing the importance of specialized and expert skills, he was drastically undercutting the prominence of nostrum-vendors and quick cures that were peddled along market lanes. At the same time, his career success did inspire others to hop on the same bandwagon, to recommend patients to purchase prepared mixtures, instead of resorting to self-help. The diary of the travelling aurist of Newsome, Huddersfield, John Swift (1784-1851), is one such example. Swift advertised and advised his patients to purchase his auricular drops, "Swift's Specific for Deafness." Through his travellers as a "higgler," he met with all kinds of professionals, including aurists, who posed attractive options for making a living. He styled himself as "Dr Swift," and was completely self-taught, having access to Curtis' *Treatise* and Thomas Buchanan's *Illustrations of Acoustic Surgery*, which outlined miraculous cures of deafness, though at times by horrific and painful means (e.g. blisters and setons). Moreover, Swift applied himself to a serious study of the ear and even delivered a lecture in the latter years of his career, at the Sheffield College in 1843.¹⁴⁸

CONCLUSIONS

In the 1832 *Clinical Report*, Curtis declared, "[n]othing can be more evident that the confidence reposed by society in the well-informed practitioner, who concentrates his time and exertions upon particular diseases; and nothing can be a fairer inference than the existence of a

¹⁴⁸ Jennifer Stead (ed.), *The Diary of a Quack Doctor: Being the Last Diary of John Swift, Aurist of Newsome, Huddersfield 1784-1851* (Huddersfield Local Society, 2002).

necessity for meeting the public wishes.”¹⁴⁹ To Curtis, the Royal Dispensary for Diseases of the Ear served to meet the public’s wishes: it catered to a large class of deaf individuals seeking assistance for aural disorders, individuals who had long suffered and been neglected by society. The remarkable popularity of the RDDE was proof, Curtis asserted, of the necessity of such an institution: as much as three-fourths of patients were either cured or relieved of their aural malady.

The RDDE is also an example of how medical practitioners could benefit from entrepreneurialism and how certain cultural elements can contribute to the making of a speciality. By creating a base whereby aurists could provide specialized care, Curtis was obtaining a tremendous portion of the market for deaf cures, undermining the offers of nostrum-vendors and quick curers who peddled their wares. Much of his carefully fashioned self-image was constructed to reflect the stereotyped lifestyle of the genteel in order to elevate his position and role closer to that of his aristocratic patients. Advertising the RDDE alongside his own publications and lectures allowed Curtis to expand his services and attract clients under the rubric of fashion. This “peculiar amalgam of social conformity and personal eccentricity” was also used to merge Curtis’ identity with the RDDE, tying his own career aspirations with his entrepreneurial and charitable strategies for the RDDE’s lasting success.¹⁵⁰

As this Chapter has shown, the RDDE is particularly significant as an institutional base whereby aural surgery could establish itself as a specialty by providing proper training to interested practitioners and experimenting with less invasive and more effective procedures for deafness. While this Chapter has argued that the popularity of the RDDE was in part due to its

¹⁴⁹ Curtis, *Clinical Report* (1832), 44.

¹⁵⁰ Nicolas Jewson, “Medical Knowledge and the Patronage System,” *Sociology* 8.3 (1994): 369-385.

fashionable ties—to the aristocracy, the concerts, and annual *grand fête champétres*—the institution was also an approach for grounding predictability in diagnosis and treatment. By accessing and treating a large number of patients, aurists could thus find a means for regulating ways to standardize practice for aural surgery, as the following Chapters will discuss.¹⁵¹ Moreover, the RDDE also dressed aural surgery as a fashionable enterprise, making the field attractive to practitioners by affording a type of success that was limited in other specialized fields. Curtis' success in securing patronage, publishing numerous treatises, and establishing a nationally-renowned institution would put aural surgery on the map; and expose it all the more to criticism.

¹⁵¹ Thomas Schlich, "Surgery, Science and Modernity: Operating Rooms and Laboratories as Spaces of Control," *History of Science* 45 (2007): 231-256.

3. EXPLORATIONS INTO THE EUSTACHIAN TUBE CREATING PUBLIC & PROFESSIONAL TRUST, 1825-1845

"The malefactor who expiates the offence of murder by an ignominious death is less guilty of the crime of homicide, is more deserving of mercy, than the cunning coward who first guiles the suffering sick to trust his specious promises, and repays the confidence by the infliction of disease, progressive misery, and ultimate death."¹

INTRODUCTION

The Royal Dispensary for Diseases of the Ear did more than just challenge the London Asylum for jurisdiction over treating the deaf. It constructed aural surgery as a fashionable enterprise, paving paths for aurists to carve a successful career for themselves. Aristocratic clientele, favourable testimonials, and promotional *grand fêtes champétre*s all demonstrated the benefits of aural surgery. Moreover, the Dispensary advocated the rhetoric that deafness could be, and was, curable medically and surgically. The aurist's skills were necessary in extinguishing the popular prejudice that threatened the expansion of the field into a specialized and unified surgical specialty.

The growing public interest in aural surgery during the 1820s and 1830s was reflective of the steady increase in the number of authors writing on aural diseases and deafness. John Harrison Curtis released an expanded and revised edition of his successful *A Treatise on Diseases of the Ear* (1817), in 1819, 1823, 1826, 1831, and 1836. His *An Essay on the Deaf and Dumb*, published in 1829, was also well-reviewed. William Wright published several works in the 1820s and 1830s, most notably *An Address to Persons Afflicted with Deafness* (1820), *Observations on the*

¹ "Crusade against Quackery—The Advertising Quack," *The Medical Times* 1 (Oct. 1839-Mar 1840), 4.

Effects of Mercury (1822), *On the Varieties of Deafness and Diseases of the Ear* (1829) and *The Present State of Aural Surgery* (1834). Thomas Buchanan published *An Engraved Representation of the Anatomy of the Human Ear* (1823), *Illustrations of Acoustic Surgery* (1825), and *Physiological Illustrations of the Organ of Hearing* (1828), all of which included beautifully drawn plates of surgical instruments and anatomies of the ear. The tremendous proliferation of publications serve as a testament to the growing consensus amongst aurists for claiming authority over their surgical specialty by demonstrating the fallacy of self-treatment while highlighting aurists' own skills and knowledge.²

These treatises particularly emphasized the “neglect” of aural surgery made by medical men, whose lack of sophisticated understanding of the structure of the ear or its diseases had largely curtailed surgical efforts. Astley Cooper (1768-1841), surgeon’s to Guy’s Hospital, for instance, remarked that there existed a prejudice amongst medical practitioners just as there was one amongst educators for the deaf that the ear “is too delicate an organ to be operated upon.”³ Such prejudice, he explained, led to thousands remaining deaf for the rest of the lives, though had proper examination been applied at the onset of their deafness, hearing might have been restored. Cooper’s optimism possibly derived from his success of tympanic membrane perforation, a

² Wilson, “Acquiring Surgical Know-How,” 49. Some of these works include: David Tod, *The Anatomy and Physiology of the Organ of Hearing* (1832), Alphonso William Webster, *A New and Familiar Treatise on the Structure of the Ear* (1836), Wilhelm Kramer, *The Nature and Treatment of Diseases of the Ear*, 2nd edition, translated for English readers from the original German (1837), Alexander Turnbull, *A Treatise on Painful and Nervous Diseases*, 3rd edition (1837), George Pilcher, *A Treatise on the Structure, Economy, and Diseases of the Ear* (1838), Denis Cronin, *An Essay on the Causes, Nature, and Treatment of Deafness* (1838), John Stevenson, *On Deafness, its Causes, Prevention, and Cure* (1839), James Yearsley, *Deafness Successfully Treated*, 2nd Edition (1839), and Hugh Neill, *A Report Upon Deafness* (1840). Even more treatises were published between the 1840s and 1890s.

³ Astley Cooper, “Observations on the Effects Which take Place from the Destruction of the Membrana Tympani of the Ear,” *Philosophical Transactions of the Royal Society of London*, 90 (1800): 1-21, Astley Cooper, “Farther Observations on the Effects which take place from the destruction of the membrana tympani of the ear,” *Philosophical Transactions of the Royal Society in London* 91 (1801): 435-450.

procedure devised to drain out collections of fluid in the middle ear, and hence, improve middle ear deafness.⁴ The eardrum works like any other drum, requiring air on both sides in order to function properly. Cooper discovered in some cases, wax or suppuration from inflammations or infections accumulated in the internal ear, preventing the passage of air to produce vibrations for sound. By puncturing the eardrum, the build-up of fluid is released, and air is delivered from the mouth through the Eustachian tubes, a passageway that lies between the middle ear and the pharynx, the upper part of the mouth located just below the top of the nose.⁵

Cooper delivered a paper before the Royal Society of London in 1801 declaring that tympanic membrane perforation did not necessarily involve damage to the ear, and outlining a specific methodology for the procedure. Medical practitioners marvelled the ingenuity of the procedure; Cooper was bestowed the Copley Medal in 1802 and elected a Fellow of the Royal Society in 1805. Unfortunately for Cooper, his strict selection criteria for perforation were ignored by many practitioners, who, finding it difficult to diagnose and treat aural diseases, particularly “nervous deafness”—whose cause often perplexed them—applied the procedure unnecessarily in some cases. Christian Michaelis, Professor of Anatomy and Surgery in Marburg, for instance, performed the procedure on sixty-three patients in 1804 alone!⁶ Others promoted the use of the procedure for their patients, leading to an injudicious overuse that eventually led to its falling out

⁴ Modern term: Myringotomy.

⁵ One of the primary functions of the tube is to equalize ear pressure between the middle ear and the atmosphere. Most of the time the tube is closed, but can open to let in small amounts of air to prevent damage to the ear. Early mentions of the tube date back to Alcmaeon of Sparta around 500 B.C., who constructed a basis for understanding medicine via dissection, and thought the tube enabled goats to breathe through their ears as well as their noses. Other Greek philosophers, including Aristotle and Celsus, also vaguely refer to the tube’s existence, but did not elaborate on its function nor purpose. Charles D. Bluestone, *Eustachian Tube: Structure, Function, and Role in Otitis Media*, Vol. 2 (PHMH-USA, 2004).

⁶ J. Rimmer, C.E.B. Giddings, and Neil Weir, “History of Myringotomy and Grommets,” *The Journal of Laryngology & Otology* 121 (2007): 911-916. 912.

of favour, and ridicule amongst practitioners.⁷ *The Mirror of Literature* published a letter by a surgeon jibing the procedure: “London aurists I understand are, or pretend to be, of opinion that the drum of the ear acquires a degree of opacity which is necessary to remove: this has been *drummed* into the ears of patients too much for me to hope to eradicate all at once.”⁸ Another wrote:

I do not wish to be misunderstood, as conceiving deafness to be, under all circumstances, incurable. But every case of deafness which one sees, tends to prove the necessity of patients applying at an early period of its coming on, and soon indeed as they experience the premonitory symptoms of difficulty of hearing, for later it becomes confirmed nothing can move it.⁹

As eminent surgeons refrained from venturing a career in aural surgery, perhaps frustrated with the difficulty of treatments or the proliferation of quack remedies, the field saw the growth of spread of itinerant practitioners attracting patients with testimonials of “miraculous and quick cures” for deafness.¹⁰ Not only did these itinerant practitioners ward off surgeons with Cooper’s stature, but there were different types of these “pretended aurists,” as William Wright noted:

There are always some of these empirycs advertising in London and its neighbourhood, as well as in all other parts of the country, who either profess to cure deafness in a wonderfully quick manner, or sell some nostrum for the purpose. These impostors of the first class may be detected by a very trifling exertion of common sense; for they promise a cure in *all* cases, and demand from three to ten guineas to be paid in advance, which of itself is quite enough to awaken suspicion, as no regular professional man expects to

⁷ Rimmer, Giddings, and Weir, “History of Myringotomy and Grommets,” 912.

⁸ *The Mirror of Literature, Amusement, and Instruction* 29 (Saturday 17 May 1823), 455.

⁹ John Fosbroke, “Practical Observations on the Pathology and Treatment of Deafness, no. VIII,” *The Lancet* (16 April 1831), 72.

¹⁰ Cooper’s student, John Cunningham Saunders (1773-1810), for instance, dropped ear surgery from London Dispensary for Eye and Ear Diseases in Charterhouse Square only five years after its establishment.

receive more than the established fees. Those of the second class sell specifics, which it will be evident...[that] *never can exist, so various are the causes of deafness*. These charlatans also produce and publish certificates that they have cured persons, who, if inquiry be made, either never existed, are now dead; or if alive, *are probably confederates* in the scheme of deception and villainy.¹¹

Since these practitioners did not aim to improve aural surgery by contributing to its anatomy or physiology, but rather proliferated in its profit-making opportunities, Wright blamed them for the continued lack of interest by “appropriate” medical men whose surgical reputation would progress the field’s authority.

In 1825, Wright published a journal, *The Aurist*, designed to raise awareness of quackery plaguing the field and to provide approaches for distinguishing the “quack aurist” from the specialist surgeon. Wright’s editorial mandate avowed that “Charlatanism is a disgrace to the profession, and to the country where it is tolerated.”¹² The journal folded after only three volumes—likely due to financial circumstances—but it is a rich historical source for examining some popular opinions of quackery. As Wright explained, since diseases of the ear are little known and understood by general practitioners, and there are far too many instances in which patients have fallen for the “adert sentiments of Charlatans.” The objective of the journal was to discuss the advantages and disadvantages of popular modes of treatments recommended by practitioners for deafness, in order to share with an interested public, options for treatment, as well as develop some standardized methods for aurists to employ.¹³ Wright examined several remedies, assessing their value and benefits, while clarifying that the journal was intended “to make the diffusion of

¹¹ William Wright, *On the Varieties of Deafness and diseases of the Ear* (London: 1829), 288.

¹² *The Aurist* 2 (30 April 1825), 61.

¹³ *The Aurist* 1 (31 March 1825), 1.

knowledge more complete to non-professional readers," thus avoiding technical terms of diseases and treatments. He began his analysis with a clarification of "deafness:"

Is a common name, not only for every diminution of the sense of hearing, without any attendant active disease in the ear, but even when acute disease is the primary cause of the complaint, it is still termed deafness by the popular world; and the more illiterate, with the poorer order, either resort to the use of some of the numerous infallible remedies with which many cookery and "receipt" books, or old women's brains, are stored, purchase the advertised nostrums of the day, or become the dupes of an ignorant empiric, who robs them of money, for advice and assistance which he is incapable of giving, and after protracted misery and disappointment, the sufferer is frequently rendered totally incurable.¹⁴

To avoid such pitfalls and unnecessary suffering, Wright encouraged the reader to take careful stock of the remedies he discusses in the pages of *The Aurist*, including such popular advertised remedies such as: corrosive sublimate dissolved in lime water; any form of mercurial drops; electricity and galvanism; clove of garlic dipped in warm oil; cold baths; salt in ear; burning caustics; aether or nitrous oxide gas; blisters; and dried alum. Wright also examined ancient remedies cited in *Thousand Notable Things*, particularly the use of animal substances: oil of earthworm; fat of eel; cast skin of serpent boiled in wine; ant's eggs; wood lice heated in rose oil; fat of cow's feet; fat of fox lungs; or goose/duck/hen grease. Wright dismissed some of these remedies as worthless. With others, he evaluated their usefulness and explained how they could be used effectively to treat particular types of deafness.

Wright was critical of practitioners who recommended dangerous remedies or treatments that were proven to be ineffective; he apparently questioned their desires for improving the field of aural surgery. For instance, he vilified Saunders' recommendation of mercury for curing

¹⁴ *The Aurist* 1 (31 March 1825), 3.

nervous deafness—a failure Saunders himself admitted—claiming that it remained an “absurd practice” that any professional man should be ashamed of using, lest he be “idiotic enough to risk his reputation and the health of his practice.”¹⁵ Yet, the “dark shades of ignorance” remained, for there were still practitioners who applied copious doses of mercury, bleeding, blisters, and/or solutions of lunar caustic, all of which were proven injurious and ineffective. These were the practitioners, Wright declared, who had no concern for the surgical authority of aural surgery, nor in the communal strength of their field. They were the quack aurists, who “pretended to a knowledge of the science of surgery, anatomy, and physiology:”

The lengths to which some of these empirics will venture to go, would be astonishing, was it not well-known that they have no character to lose...what is greater evil to the poor than quackery?...The public may easily detect these Charlatans, they in almost every instance, either bargain to perform a cure for a certain sum of money, or demand a sum of five or ten guineas to be paid down, before they commence operations. No respectable practitioner, or a man of character, adopts any such course; he takes his regular fees the same as a physician, and as patients consult him in consequence of the high opinion they have conceived of his abilities, so he ought from honourable principles, regard to his own character and reputation in point of skill, to relieve them as speedily as the nature of the case will allow.¹⁶

Wright does not reveal who he considered to be a “quack aurist,” only providing the above characteristics as the mark of one. His remarks raises important historical questions about the difficulty of identifying the quack and the problems this created for aurists seeking to obtain their surgical authority and public trust in their field. Matthew Ramsey points out that in order to understand how and why people turned to empiricism as an occupation, we need to evaluate it as

¹⁵ *The Aurist* 2 (30 April 1825), 46.

¹⁶ *The Aurist* 3 (31 May 1825), 67-8.

a cultural phenomenon: how did it fulfil client's needs and expectations, what benefits did it provide, and how useful was its value?¹⁷

The *Medical Adviser and Guide to Long Health and Life*, for instance, told its readers, “[a]n aurist is a useful member of the profession. We think a man that dedicates his time to the study of the ear should be of great benefit to society; but we wish they would deal with their patients more ‘honestly.’”¹⁸ They advised any person seeking treatment for deafness to “prefer a scientific surgeon to any ‘aurist’ in England.” Yet in some cases, the quack aurist was pointed out for his “empiricism,” that is, his practice of trial and error that disregarded “formal theoretical grounding.”¹⁹ For the historian, distinguishing between the “specialized aurist” and the “quack aurist” is further complicated by accusations of quackery that were flung between all practitioners of aural surgery. But such a distinction is invalidated by the fact that as aural surgery struggled to define itself as a profession, the level of expertise commended by such practitioners varied according to their own views of expertise. Perhaps the difference between the “quack aurist” and the “qualified aurists” is rooted in possession of expertise, alongside the lines of Steven Shapin’s “prudential” expert (who bases expertise on accumulation of knowledge) and “ontological” expert (whose authority is derived from the possession of a *particular* kind of knowledge).²⁰ The problem with this, however, is that the public might not have necessarily recognized the expertise, especially if they merely desired a cure. John Harrison Curtis considered himself as an aural surgeon by virtue of the fact the Royal Dispensary for Diseases of the Ear and his positions in court

¹⁷ Matthew Ramsey, *Professional and Popular Medicine in France, 1770-1830: The Social World of Medical Practice* (Cambridge: Cambridge University Press, 1988).

¹⁸ *Medical Adviser and Guide to Long Health and Life* (1824).

¹⁹ Porter, *Quacks*, 22.

²⁰ Steven Shapin, “Trusting George Cheyne: Scientific Expertise, Common Sense, and Moral Authority in Early Eighteenth-Century Dietetic Medicine,” *Bulletin of the History of Medicine* 77.2 (2003): 263-97.

afforded him a national reputation, and yet he was mercilessly attacked by Wright for his lack of qualifications and accused of exaggerating his cases. Wright, James Yearsley, Thomas Buchanan, and even Joseph Toynbee at one time or another in their career, were all accused of quackery.

The strife between aurists over quackery was also troubling for the paying public. For instance, *The Lancet* published a piece by Joseph Toynbee criticizing the tendency of advertisements published by newspapers without careful examination, for those adverts disguised the skills of a practitioner, and in so doing, “tend to mislead and cheat the public” Thus,

as long as the public is as unwise as it is now, it is to be feared that there will be found Turnbulls, with applications; Cronins, Curtises, and hosts of others with ear drops, Blairs, with gout drops; Holloways, with double universal ointments; St. John Longs, with killing frictions; and all of them will gain their end by getting a living.²¹

Here, Toynbee connects the reputation of certain aurists with their favourable remedies, expressing that the success of their careers were rooted in their “getting a living.” This statement reflects Anne Digby’s analysis of the careers of medical practitioners and the various marketing strategies they used to make a “medical living.”²² Print, packaging, patronage, and new technologies, constituted techniques used by practitioners to popularize their medical discourses to the public, embark on a quest for authority, as well as attract consumers towards their practice. These strategies were often implemented to balance the interplay of public and professional trust of a practitioner’s skills. Aurists sought to establish their “occupational competence” by appealing directly to the public, through advertisements or inserts in local newspapers showcasing their

²¹ “Quack Curers for the Deaf,” *The Lancet* 32 (April 1839): 113.

²² Anne Digby, *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* (Cambridge: Cambridge University Press, 1994).

clinical and surgical skills.²³ Additionally, aurists used these strategies to convey a picture of professional unity in order to give some credence to a field overwhelmed by its competitive nature in the market for medicine. These kinds of “interest-based turf battles,” as Mike Saks explains, can be used to investigate shifting boundaries between how “orthodox” and “unorthodox” medicine was defined, particularly over the use of advertisements.²⁴ As Lisa Foreman Cody notes, medical adverts were usually placed by “marginal practitioners” or even booksellers who made a living selling “quack” or patent medicines; “elite and traditional” practitioners often chose to rely on word-of-mouth and recommendations among a private clientele, refusing to succumb to the commercialization of their brethren.²⁵ Social class did make a difference in the success of an aurists’ career, and in many cases, patronage from the aristocracy protected them from ridicule.

However, some aurists who gained public trust through advertising difficult surgical treatments were perceived by other practitioners as undermining the integrity of aural surgery. Wright was critical of what he viewed as “nefarious practices” and “evils which these imposters inflict through want of skill” in duping a public seeking for a cure.²⁶ He asserted that those professing to cure deafness in a “quick manner” or those revealed as imposters or charlatans were a danger to aural surgery. Not only did they prevent the attempts of prominent aurists from forming an unified identity, but by contributing to a public reputation of a field “welcome to quacks,” they further weakened the integrity of the field with public accusations of dishonesty or

²³ Philip K. Wilson, “Acquiring Surgical Know-How: Occupational and Lay Instruction in Early Eighteenth-Century London,” in *The Popularization of Medicine 1650-1850*, ed. Roy Porter (London & New York: Routledge, 1992), 42-71; 42.

²⁴ Mike Saks, “From Quackery to Complementary Medicine: The Shifting Boundaries Between Orthodox and Unorthodox Medicine,” in *Complementary and Alternative Medicines: Knowledge in Practice*, eds. Sarah Cant and Ursula Sharma (London: & New York: Free Association Books, 1996), 27-43; 27.

²⁵ Cody, “‘No Cure, No Money,’” 106.

²⁶ William Wright, *Plain Advice for all Classes of Deaf Persons, the Deaf and Dumb, and those having Diseases of the Ear* (London: Callow & William, 1826), 173.

quackery. As a result, these “illiberal and unjusted opinions,” actually confused the “TRUE state of AURAL SURGERY IN ENGLAND,” threatened the national reputation of its “credible practitioners, and barred prominent medical and surgical practitioners from considering aural surgery as a specialty.²⁷ “I should rejoice, Wright continued, “if aural surgery, instead of being disgraced by *interested charlatanism* and *ignorant pretenders*, were cultivated by a society of scientific individuals.”²⁸

These debates over quackery in aural surgery also fit within the historical background of the rhetoric of “medical science” as applied within the 1830s calls for reform and march of progress. According to Irvine Loudon, much of medical reform was initiated by medical men rather than by government, as they made “medical science” their rallying cry, mixing their altruistic side with financial and social considerations.²⁹ Reform, Loudon explains, started during the late 1820s with the aim of defeating the “irregular,” but upon the realization that a monopoly of medical care could possibly never be achieved, reform rhetoric turned inwards as an intra-professional quarrel.³⁰ The Reform Act of 1832 and the advent of cholera epidemics during 1831-1832 ignited an atmosphere dominated by Parliamentary intervention towards the reconstitution of medical practice, though this did not occur until the 1850s.³¹ The ideal of science was something that offered medical dominance, a way for medical practitioners to expand their career goals, as well as provide a culturally compelling language that became powerful calls for

²⁷ William Wright, *A Few Minutes' Advice to Deaf Persons* (London: James S. Hudson, 1839), vii.

²⁸ Wright, *A Few Minutes' Advice*, xiv.

²⁹ Andrew Wear (ed), *Medicine in Society: Historical Essays* (Cambridge: Cambridge University Press, 1992), 7.

³⁰ Irvine Loudon, ““The Vile Race of Quacks with which this country is infested,” in W.F. Bynum and Roy Porter (eds.), *Medical Fringe and Medical Orthodoxy 1750-1850* (London: Croom Helm, 1987), 108-128; 122.

³¹ Roy Porter, *Disease, Medicine and Society in England 1550-1860* (London: MacMillan Education Press, 1987), 50.

professionalization and specialization.³² Certainly, within this context, aurists saw it fitting to contribute in debates on reform, professionalization, and quackery, seeking to legitimate their practice as well as solidify their surgical authority.

This Chapter focuses on the case of Dr. Alexander Turnbull (1794/6-1881) and the deaths of two of his patients in 1839 following Eustachian tube catheterization, as a case study for discussing relevant themes of quackery, the rhetoric of science, and aurists' claims for specialization and legitimacy. During the week of 23 June, Turnbull faced inquiries into the deaths of his patients, sixty-eight year old William Whitbread and eighteen year old Joseph Hall, supposedly due to negligence by misapplication of Eustachian tube catheterization. An examination of the coroner's inquest into Hall's death suggests that the case did more than just draw attention to the dangers of itinerant aurists or weakened public trust into the benefits of aural surgery: it questioned the nature of the field's consensus on a surgical procedure and undermined the authority of aurists as skilled experts seeking to create a specialty. As with many other aspects of their field, aurists disagreed on the methods by which catheterization should be applied, defending their claims in medical periodicals. Furthermore, the lack of consensus on the procedure, combined with the inquiries into Turnbull's practice, pushed some aurists to advocate reform in their field. As the investigation raised broader questions about the effectiveness of catheterization as a surgical procedure, some aurists feared the case would undermine their surgical authority and sought to remedy the situation by defending the procedure in local

³² John Harley Warner, "Ideals of Science and their Discontents in Late Nineteenth-Century American Medicine," *Isis* 82.3 (Sept. 1991); 454-478.

newspapers, arguing only skilled and trained hands were worthy to perform such a risky procedure.³³

ANATOMY OF THE EUSTACHIAN TUBE

The Eustachian tube has long been known for playing some part in hearing. Bartholomeus Eustachius (1510-1574) who held the Chair of Anatomy at Rome, published the first detailed anatomical description of the tube in his 1562 *Epistola de auditus organius (Examination of the Organ of Hearing)*.³⁴ Comparing the tube to a quill pen, Eustachius provided precise descriptions of its structure and position in the face, but he made no mention of its function.³⁵ In *Traité de l'organe de l'ouie*, (1683), the French anatomist Guichard Joseph DuVerney (1648-1730) corrected the notion the Eustachian tube was another avenue of breathing, described the Eustachian tube as a means for renewing air within the tympanum and for equalizing air pressure. He argued that the tube was always open and it was the eardrum that maintained the flow of air.

Descriptions of the Eustachian tube contained more than just anatomy: they highlighted the physiological and therapeutic importance of diagnosing and treating ear diseases confined to the Eustachian tube or tympanum. Antoino Maria Valsalva (1666-1732), who gave the tube its

³³ "Catheterism of the Eustachian Passages: Death of Joseph Hall, in Russell-Square," *The Lancet* 32 (3 August 1839): 683-692.

³⁴ The treatise is possibly the first on the anatomy of the ear. Eustachius describes the tube: "It originates at the anterior course of the base of the skull, and takes an anterior course toward the pterygoid process of the sphenoid bone. It consists of two parts: the first solidly connected with the temporal bone, close to the tympanic cavity; the second soft, partly ligamentous, partly cartilaginous, directed towards the nasopharynx. Cross sections of the tube are not perfectly round and the inner part is twice as wide as the outer." Translated and quoted in Bluestone, *Eustachian Tube*, 5).

³⁵ It is likely that Eustachius held the long-standing belief that the Eustachian tube functioned as (another) avenue for breathing, since he postulated that other parts of the ear, especially the ossicles and tympanum, were involved in the mechanism of sound transduction.

eponymous name in honour of Eustachius, applied years of intense observations, animal experiments, and numerous dissections, to describe the function of the Eustachian tube and its diagnosis. His 1704 *De aure humana tractatus*, outlined the tube as working alongside the pharyngeal muscles of the ear; believing the blockages in the tube were amongst the main causes of deafness, the treatise introduces the “Valsavian maneuver” as a method for removing such blockages.³⁶ While *De aure* remained one of the standard treatises on the ear at the time, the Valsavian maneuver contained little therapeutic benefits for cases without blockages in the tube or associated parts of the ear. Moreover, it could hardly detect causes for the majority of cases of deafness. In 1724, Valsalva’s method was modified by the use of a catheter by Edm  -Gilles Guyot, a postmaster at Versailles, who constructed an angular tube of pewter and put it through his mouth into the opening of the Eustachian tube. The instrument was then attached to a leather tube connected to two small pumps that forced fluid into the mouth of his Eustachian tube and essentially, “washed” out his deafness.³⁷

³⁶ The “Valsalvian maneuver” is a method consisting of the forced expiration of air through the Eustachian tube with the mouth and nostrils closed, thus resulting in increased pressure to the tympanic membrane. The procedure dates back to Arab physicians in the 11th century and was used as a remedy for cleansing the middle ear from pus, and hence, unblocking the ear and restoring hearing. Steven H. Yale, “Antonio Maria Valsalva (1666-1723), *Clinical Medical & Research* 3: 35-38. The Valsalva maneuver remains a staple in modern medicine, having been adapted as a diagnostic procedure in modern cardiology for assessing heart murmurs and heart failure.

³⁷ Excited with the success of his instrument, Guyot presented his apparatus to the Acad  mie Royale des Sciences de Paris: “Machines ou Inventions Approvees par l’Academie en M.DCCXX,” *Histoires de l’Academie Royale des Sciences* (1720), 114. “Une Machine    scier de M. Guyot. Quoi-qu’elle fait confruite fur le m  me principe que cells qui font en usage, & que le Vent ou l’Eau font agir, elle a quell-que chose de particulier & d’ingenieux. Elle a fur cells qui font    Vent ou    Eau l’avantage de pouvoir   tre transport  e. Il n’est besoin d’acune adresse pour la faire travailler, & les plus mal adroit peuvent par son moyen   quarrer & scier parsaitement des Planches, & tout cela peut d  dommager de la petre des foyes cause par les srottements in  vitables dans toute Machine.” Also: Etm  -Gilles Guyot, “Instrument pour seringues la trompe d’Eustache par la bouch,” *Histoires de l’Academie Royale des Sciences*, 37 (1726), cited in Neil Weir, *Otolaryngology: An Illustrated History* (London: Butterworths, 1990).

However, Guyot's instrument received little attention or excitement, for anatomists did not think the entire tube could be reached via insertion, and partly since the technique was believed to be cumbersome for regular treatments.³⁸ The technique was later modified in 1741 by Archibald Cleland (1700-1771), a Scottish military surgeon, who, unaware of Guyot's instrument, described catheterization with the use of flexible silver tube instead of a pewter one.³⁹ Additionally, Cleland recommended catheterization only upon occasion in which drainage of earwax or removal of obstructions with a forceps, failed to remedy the patient of deafness.⁴⁰ Cleland's procedure was further described in detail by the surgeon Jonathan Wathen, who argued the Eustachian tube played an important avenue for maintaining air pressure through its "free communication with the atmosphere," making use of cadavers to examine the benefits of catheterization, although he notes that the procedure was only effective in a small number of cases.⁴¹ Catheterization was not

³⁸ Weir, *Otolaryngology*, 45.

³⁹ Archibald Cleland, "A Description of Needles made for Operations on the Eyes, and of Some Instruments for the Ears," *Philosophical Transactions* 41 (1741): 847-851. Cleland's procedure also differed significantly from that of Guyot's with the insertion of the catheter; Cleland favored insertion through the nasal cavity, which allowed better access to the Eustachian tube, whereas Guyot's method relied on the catheter being inserted through the mouth. It's important to note that Cleland did not view the procedure solely as a remedy for deafness, but rather as a means to "dilate the Tube" sufficiently for drainage, and attached a syringe as part of the procedure.

⁴⁰ "If, upon Trial, [the Eustachian tube] should be found to be obstructed, the Passage is to be lubricated by throwing a little warm Water into it by a Syringe joined to a flexible silver Tube, which is introduced through the Nose into the oval Opening of the Duct at the posterior Opening of the *Nares*, towards the Arch of the Palate. The Pipes of the Syringe are made small, of Silver, to admit of bending them, as occasion offers; and, for the most part, resemble a small Catheters: They are mounted with a Sheep's Ureter; the other End of which is fixed into an Ivory Pipe; which is fitted to a Syringe, whereby warm Water may be injected: or they will admit to blow into the Eustachian tube, and so force Air into the Barrel of the Ear, and dilate the Tube sufficiently for the Discharge of the excrementitious Matter that may be lodged there." Cleland, "A Description of Needles," 849.

⁴¹ Using a silver catheter fixed to an ivory syringe full of liquor (*mel rosarum* in warm water), Wathen treated several patients with various symptoms and cases of deafness, describing the use of the procedure on six of his patients; he thus is among the first to publish case studies of Eustachian tube catheterization as a remedy for deafness. He writes: "I have endeavoured to ascertain the symptoms that indicate an obstructed tube, but have not been able to do it with any degree of certainty; nor can I see the great utility

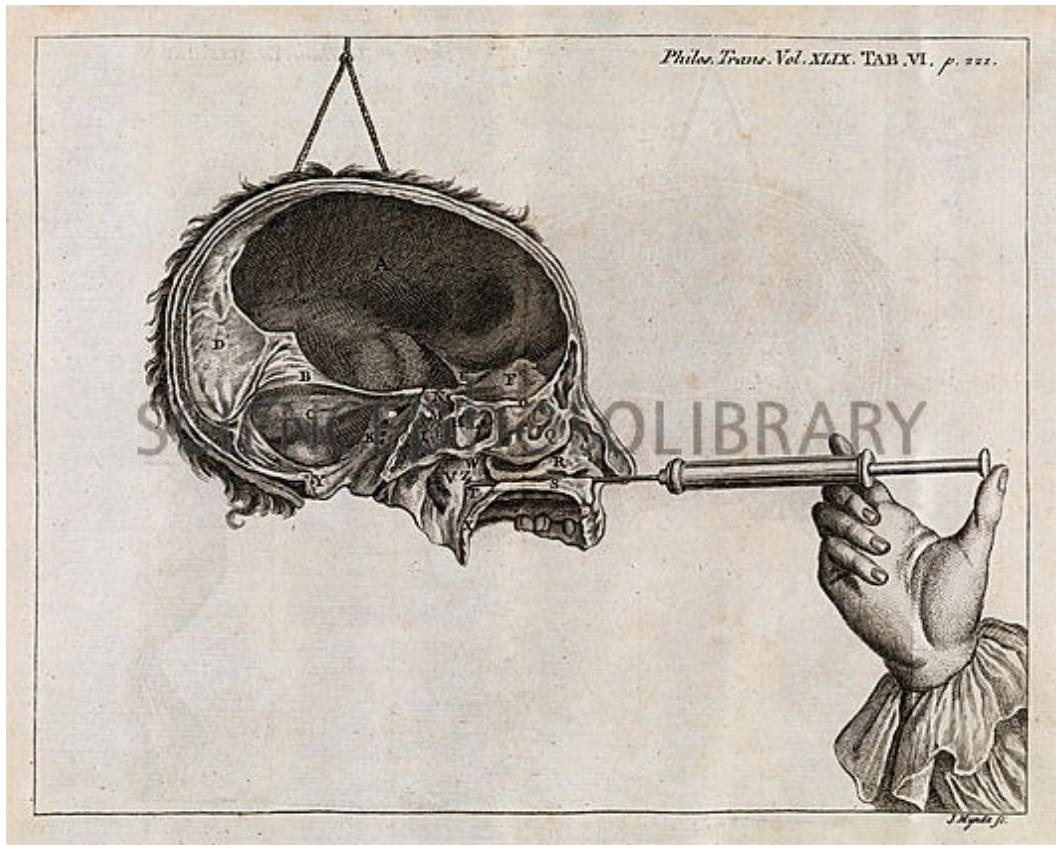


Image 15: Eustachian tube catheterization, as outlined by Wathen. *Source.* *Philosophical Transactions of the Royal Society* 49 (1756), Science Photo Library.

an immediate success in the late eighteenth century. Many practitioners were reluctant to try what they viewed as a frivolous and dangerous procedure and some claimed they even lacked the dexterity to perform it.⁴² Wathen's experiments with cadavers allowed him to refine his skills and apply catheterization to his live patients; the same could not be said for other physicians or

of it, could it be done; for the only disorders of the ear, that at present admit of chirurgical helps, are those of the external meatus, ulcerated and swell'd tonsils, &c., all of which are generally visible; and when they are not the cause of deafness, little or nothing is ever attempted, the patient being left to shift for himself." Jonathan Wathen, "A Method Proposed to Restore Hearing when Injured from an Obstruction of the Tuba Eustachiana," *Philosophical Transactions of the Royal Society* 49 (1756): 213-222, 220.

⁴² Weir, *Otolaryngology*, 46.

surgeons who, despite living in a “culture of dissection,” could not necessarily access numerous bodies for dissection or practice.⁴³ Moreover, it was highly unlikely these practitioners could even find bodies of deaf persons upon whom they could investigate diseases in the Eustachian tube. Thus, without a voyeuristic exploration of the deaf person’s body, it was difficult for aural surgeons to build their knowledge about diseases of the ear and the Eustachian tube, let alone advocate a procedure that was difficult enough to implement on a cadaver. Some, like French anatomist Raphael Bienvenu Sabatier (1732-1811), remarked that as difficult as catheterization was in an anatomical body, it would be almost impossible on a living subject.⁴⁴ As a result, the procedure was not widely used as a therapeutic application until the 1830s, as many practitioners considered it a risky operation.

CATHETERIZATION ACROSS THE CHANNEL

It was not until nineteenth century that Eustachian tube catheterization became listed as a standard procedure for dealing with blockages in the tube, with the work across the British Channel at the *Institution Nationale des Sourds-Muets* in Paris. The Institute’s surgeon, Jean-Marc Gaspard Itard (1774-1838) employed an image of deafness based on physiological defect—not of philosophical inquiry into language, as it was in the seventeenth and eighteenth centuries. His work emerged as the frontrunner for newer and more experimental surgical methods for treating deafness. Within this image, Itard searched for a cure that he hoped would “objectify the disease,”

⁴³ Jonathan Sawday, *The Body Emblazoned: Dissection and the Human Body in Renaissance Culture* (London & New York: Routledge, 1995).

⁴⁴ John Harrison Curtis, *An Essay on the Deaf and Dumb* (London: Longman, Rees, Orme, Browne, and Green, 1829), 155.

turning to post-mortem examinations to draw conclusions about the root cause(s) of deafness.⁴⁵ His research suggested that in several instances, congenital deafness arose from material causes that could be surgically removed. Building upon his observations, Itard applied his surgical skills towards the Eustachian tube, as an avenue for surgically treating deafness.⁴⁶ In *Traité des Maladies de l'Oreille et de l'Audition* (1821), he wrote of his fondness of Eustachian tube catheterization and recommended various processes for catheterization, including using solutions combined with salt, or gaseous vaporizations such as tobacco smoke, coffee fumes, or ether. Arguing that Eustachian tube connected the ear with the mouth, and thus hearing with speech, Itard insisted that any blockage in the Eustachian tube severely interrupted the communication process. His procedure was a modified version of Cooper's tympanic membrane puncture: he injected the cavity of the tympanum through the membrane, in order to expel any obstructions through the Eustachian tube and out the nose. The procedure, first undertaken on twelve year old Christian Dietz, deaf from birth, was an immediate success; Dietz's hearing was almost fully restored and he recovered the use of speech.⁴⁷ However, the procedure failed to remedy the deafness in twelve other pupils.⁴⁸

⁴⁵ Anne T. Quartararo, *Deaf Identity and Social Images in Nineteenth-Century France* (Washington: Gallaudet University Press, 2008), 20.

⁴⁶ On Itard's post-mortem examinations: "He twice found the cavity of the tympanum filled with concretions of a chalky appearance, and in two other instances with fungous excrescences, in connection with the loss of the membrane of the tympanum and the little bones. A fifth subject presented a mass of gelatinous matter, which filled not only the cavity of the tympanum, but the semi-circular canals of the labyrinth. In another, who died after two years of malignant fever, the auditory nerve had little more consistence than mucus. Others have found the Eustachian tube in some cases filled, and in others completely obliterated. The partial or total imperforation of the meatus auditorius has been observed." George Day, "On the late efforts in France and other parts of Europe to restore the deaf and dumb to hearing," *American Journal of Sciences and Arts* 30 (1836): 301-323; 303.

⁴⁷ Day, "On the late efforts in France," 316. Dietz died a few months after the operation, after being attacked with a disease "which baffled medical skill."

⁴⁸ Quartararo, *Deaf Identity and Social Images*, 22.

Itard's reputation as a physician offering specialized treatments for deafness flourished and he became identified with a new approach towards deafness, one which relied on research and clinically-driven perspectives on the "disease" of deafness. Anne Quartararo explains that Itard's work marked the first time in France that an oralist method was tied together with a medical model of deafness; by integrating medical treatments with speech-training, Itard advocated the notion deafness was the result of abnormal physiology, and thus, for the deaf to become "normal," their disease, needed to be "cured."⁴⁹ Although Eustachian tube catheterization had been known for nearly a century, despite Itard's tremendous improvements and clinical applications of the procedure on pupils at the *Institution Nationale des Sourds-Muets*, some practitioners considered Eustachian tube catheterization "as having demonstrated nothing, except the practicability of the injection of the Eustachian tube, and the little reliance which could be placed upon it as a means of cure."⁵⁰

Opinions surrounding the procedure drastically transformed in 1825, when Nicolas Deleau (1797-1862), another surgeon appointed at the *Institution Nationale des Sourds-Muets*, undertook a series of experiments on catheterization, in order to affirm that the deaf and dumb could be restored to hearing and speech. Like Itard, Deleau contended that tympanic membrane perforation could only go so far in restoring hearing; catheterization of the Eustachian tube combined with an injection of fluid, however, was not as effective as catheterization with air—which Deleau claimed was much better tolerated by patients. The modified technique for catheterization as well as his work with Claude-Honoré Trézel made Deleau famous, particularly his claims that the tympanum is useful, but *not absolutely necessary* for hearing.

⁴⁹ Quartararo, *Deaf Identity and Social Images*, 23.

⁵⁰ Day, "On the late efforts in France," 317.

As George Day (1815-1905), instructor at the New York Institution for the Deaf and Dumb, described, Deleau's publication "excited great interest at the time both in England and the continent," to such a degree that even "newspapers eagerly seized hold of what so nearly approached the marvelous, and circulated the most exaggerated reports of [Deleau's] magic power."⁵¹ The *Académie des sciences* favourably reported Deleau's success, noting that "[n]othing remarkable occurred during the operation, which is very simple and by no means new. It consisted in the injection of liquids into the Eustachian tube, by means of a small flexible *sounde* [sic]. The first few days after the development of hearing, was a season of continual delight to the child."⁵² Day also affirmed that there was a palpable contradiction between the report presented to the *Académie des sciences* and Deleau's account, namely that the report described the operation in using the injection of *liquids*, whereas Deleau professed using the injection of *air*.⁵³ Although Day did not elaborate on the contradiction—focusing rather, on whether the operation did indeed restore Trézel's language and speech facilities—this is significance worth emphasizing. One of the reasons Deleau's work caused great interest in the procedure was his use of *douches d'air* in conjunction with the catheter, which was claimed to be superior than Itard's advocating fluids, and Deleau embarked his practice on this difference.

It appeared that Deleau's publications, combined with favorable support from the Academy, led to "injections of air (*douches d'air*)...finally to have taken the place of nearly all other remedies."⁵⁴ Nevertheless, not all aurists agreed with Deleau's general claim about the effectiveness of Eustachian tube catheterization as a remedy for deafness. According to Day,

⁵¹ Day, "On the late efforts in France," 316.

⁵² Quoted in Day, "On the late efforts in France," 318.

⁵³ Day, "On the late efforts in France," 321.

⁵⁴ Day, "On the late efforts in France," 322.

There were some, however, who, in the midst of this general enthusiasm [for Eustachian tube catheterization], had the boldness to doubt the reality or at least the extent of the wonderful cures alledged [sic] to have been performed. Themselves physicians and surgeons, and many of them distinguished for their knowledge of the anatomy and diseases of the ear, they were too well acquainted with the little success which had attended the efforts of others, and with the intrinsic difficulty of the subject, to believe that it had all at once been so entirely surmounted, that henceforth deafness would be as easy to cure as other diseases. In reply to the numerous cases of restoration to hearing which M. Deleau was constantly publishing, they affirmed that some of his operations were precisely such as had been repeatedly performed before him with not the least success; and that others were anatomically impossible. They complained that no information was given of the condition of the patients after the operation; and denied, in short, that any cures had really been effected. In answer to these objections, he seems to have relied in a great measure upon his apparent success in the case of a boy named Trézel.⁵⁵

In 1827, the Council of Administration of *Institution Nationale des Sourds-Muets* requested Itard to follow-up with Deleau's claims and submit a report on the advantages of various remedies offered for deafness. Experimenting with the utility of Eustachian tube catheterization, Itard performed the operation on 120 cases. He remarked that the results were "just nothing, with regard to hearing, in the great majority of the mutes, and in the rest, temporary and of little advantage."⁵⁶ Itard's report concluded that despite a few cases of perfect recovery—which he deemed as isolated exceptions—congenital deafness could not be cured, thus opposing Deleau, who had long supported Itard's technique. Deleau argued against Itard's criticisms, ridiculing the latter in a chapter of *Treatment for Catheterization of the Eustachian Tube* (1838), by insisting that the work

⁵⁵ Day, "On the late efforts in France," 318.

⁵⁶ *Deuxième rapport, lu, le 9 février, 1827, au Consil d'Administration, etc., p.11*, as quoted in Day, 323.

of a physician was split between providing medical and surgical care for ears and improving the speech of deaf-mutes (instead of teaching them sign language).⁵⁷

Catheterization, as outlined by Deleau, gained tremendous ground across the Channel. Originally viewing by British aurists as “having demonstrated nothing, except the practicability of the injection of the Eustachian tube, and the little reliance which could be placed upon it as a means of cure,”⁵⁸ the growing popularity of the procedure owed to two reasons. First, it afforded British aurists an approach to demonstrate to their patients their qualifications and skills as a surgeon. The procedure was difficult to execute, particularly with employing the catheter—which often induced vomiting and nausea occasioned with the introduction of the probe into the mouth or nose—so a practitioner’s reputation was enhanced with successful treatments of deafness through catheterization. Secondly, aurists were limited in using surgical procedures to treat deafness; treatments often relied upon herbal-based emetics of nostrums mixed with minor surgical procedures, such as Cooper’s tympanic membrane perforation, syringing, or removal of polypus or foreign objects from the ear. As a successful surgical option, catheterization could not only cure deafness or highlight an aurists’ skillset, but it could also urge for the necessity of a surgical specialty—and it also meant aurists could eagerly employ the procedure in unnecessary cases, thus leading to an over-dependency of the procedure as a “catch-all” cure.

There were, however, some British aurists who remained ambivalent about applying the procedure in their patients. Curtis, for instance, admitted he was unacquainted with the catheter, having seldom resorted to it, having “long been persuaded that it is neither simple nor harmless;

⁵⁷ *Traité du Cathétérisme de la Trompe d'Eustachi, et de l'emploi de l'air atmosphérique dans les maladies de l'oreille moyenne* (Paris: Germer-Baillière, 1838).

Germer-Baillière 1838

⁵⁸ Day, “On the late efforts,” 317.

and that, even in the most experienced hands, it is quite as, likely to prove injurious as beneficial.”⁵⁹ Wright as well, tried the procedure during his early years and even wrote about its use in 1818, but did not find it beneficial for the majority of cases that he encountered in his practice.

THE PRETENSIONS OF DR. TURNBULL

Alexander Turnbull was amongst a handful of British aurists who jumped the bandwagon of Eustachian tube catheterization as an absolute remedy for deafness. Born in Scotland, Turnbull received his medical diploma from Edinburgh University in 1821, a year after marrying Jane Graham, who would later bear him six children. He spent his early career practicing in Carlisle and Hull. In 1829, he was involved in a scandal in Hull, when he was named the beneficiary of a large fortune left in the will of his patient, Mr. William Stephenson of Beverly. The scandal turned into a legal matter that reached the court of the King’s Bench in 1831, where in reading the verdict, the foreman noted “in giving this Verdict, we beg to be permitted to express our opinion, that Dr. Turnbull’s conduct has been highly unprofessional, and greatly discreditable to himself.”⁶⁰ Obviously wanting to distance himself from the scandal, Turnbull moved to London and set up a practice as an aurist at Russell Square.

⁵⁹ John Harrison Curtis, *Advice to the Deaf: The Present of Aural Surgery*, 6th Edition (London: Whittaker & Co., 1846), 17.

⁶⁰ *Report of the Trial of Thomas Bent Hodgson, Esq., and others charged with a conspiracy: at the court of King’s Bench, Guildhall, London, on Wednesday & Thursday the 21st and 22nd of December 1831 by a special jury before the Right Hon. Lord Tenterden* (Printed by James & Luke G. Hansard & Sons, 1831), 452. The case followed an indictment against Thomas R. Hodgson, William Young, Ann Young, and Nancy Watson, charging them to having conspired to manipulate William Stephenson’s will. The defendants argued that Stephenson’s fortune was duly executed, and that Turnbull, as Stephenson’s physician, manipulated Stephenson to rewrite his will. The verdict found the defendants not guilty of conspiracy.

Like many practitioners of the day seeking to establish a career, Turnbull advertised his skills and practice in various circulars. He offered patients a variety of herbal remedies, as well as surgical procedures for obstructions of the Eustachian tubes. However, he does not provide a clear explanation for his decisions for advocating a surgical procedure instead of a herbal remedy, or the means he used for differentiating between cases. One remedy he did push with great fervour, was the use of veratria, a poisonous alkaloid obtained from the hellebore root, as an ointment applied on the external ear. The same treatment, along with other alkaloids from the *Ranunculaceaæ* family, was amongst Turnbull's remedies for deafness, gout, dropsy, rheumatism, and affections of the heart.⁶¹ Six pages of Turnbull's 1837 *A Treatise on Painful and Nervous Affections, and a New Mode of Treatment for Diseases of the Ear* discussed the benefits of veratria, which he referred as "electro-stimulation" treatment:

Feeling satisfied that I had in my possession means decidedly effective in promoting absorption through the medium of the nerves, and knowing that deafness often arose from the Eustachian tube being obstructed by enlarged tonsil glands, I applied veratria externally over these glands, and found it frequently succeed in removing their enlargement and restoring the hearing.⁶²

He boasted the procedure was so effective in curing or relieving many cases of deafness, and other ailments, including: affections of the heart (9 cases cured), neuralgia (pain of the nerves; 12 cases cured out of 13), rheumatism (8 cured out of 9). Alkaloids were commonly used in medical mixtures at the time, and though some were found useful in tropical remedies, they still carried some doubt amongst medical practitioners of their efficacy.

⁶¹ Alexander Turnbull, *On the Medical Properties of the Natural Order Ranunculaceæ* (London: Longman, Rees, Orme, Brown, Greene, & Longman, 1835).

⁶² Quoted in William Wilde, *Practical Observations on Aural Surgery and the Nature and Treatment of Diseases of the Ear* (London: John Churchill, 1853), 44.

Other aurists were heavily critical of Turnbull's use of advertisements, arguing they were nothing but self-aggrandizement and blurred the truth of the remedies proposed to be effective. Joseph Toynbee, for instance, wrote to the *Lancet* warning readers of "quack curers of the deaf" that were printed in London's daily newspapers that week.⁶³ The advertisements in question were those of Turnbull's and his claims of curing any cases of deafness not arising from organic disease, with the application of a specific remedy he conjured with the use of *veratria*.⁶⁴ As Toynbee explained in his editorial, his issue with the advertisements was not whether Turnbull could differentiate between organic and non-organic causes of deafness—a claim Toynbee doubted held any truth or value—but rather, on Turnbull's public declaration of his expertise through advertisement. "[H]e sends his advertisement to the public papers," Toynbee wrote, "for an enormous payment gets it inserted as a paragraph...[and] by the aid of the circulation of this puff...deaf people consult Dr. Turnbull; he makes his application, and takes his fee."⁶⁵ Toynbee insisted this was a disgraceful and underhanded maneuver directed towards attracting patients, who were left vulnerable to potentially dangerous treatments: "Sir, almost every medical man must have heard of the most horrible effects sometimes produced by the application Dr. Turnbull uses...It must be apparent that Dr. Turnbull has no greater knowledge upon the diseases of the ear, than the ignorant whom I have before exposed by means of your pages."⁶⁶

William Wright also questioned and criticized Turnbull's advertisements. In addition to his herbal remedies, Turnbull advertised the use of surgical procedure, including syringing, removal of obstructions with forceps, and Eustachian tube catheterization. According to Wright, part of

⁶³ "Quack Curers for the Deaf," *The Lancet* 32(April 1839): 112-113.

⁶⁴ Alexander Turnbull, *On the Medical Properties of the Natural Order Ranunculaceæ* (London: Longman, Rees, Orme, Brown, Greene & Co., 1835).

⁶⁵ "Quack Curers for the Deaf," *The Lancet* 32 (April 1839), 113.

⁶⁶ "Quack Curers for the Deaf," *The Lancet* 32 (April 1839), 113.

Turnbull's shift from herbal remedies to surgical procedures was nothing more than self-advertisement: "Dr. Turnbull appears tacitly to have abandoned his remedies of such *wondrous* power, which produced the "*extraordinary exhibition*" mentioned in the newspapers, or to have added it to the *old system newly revived* and modified, of passing an instrument through the nostrils into the eustachian tube."⁶⁷ Wright warned the public not to be duped by Turnbull's obvious quackery, which was thinly disguised by the promotion of a surgical procedure.

THE DEATH OF WILLIAM WHITBREAD

Toynbee's warnings about Turnbull were merited. During the summer of 1839, Turnbull would see a drastic transformation of opinions regarding his practice, qualifications, and skills as a practitioner. On Thursday 20 June, sixty-eight year old William Whitbread visited Turnbull's practice for an operation to treat "excessive deafness" under which he had been "for some time labouring."⁶⁸ Little is known about Whitbread other than that he had visited Turnbull on several occasions for a series of Eustachian tube catheterization. Local newspapers reported that immediately following Turnbull's operation, Whitbread "was attacked with a violet swelling in the throat, and though the utmost attention had been paid to him, he expired." The sudden and violent circumstances of Whitbread's death possibly led to his family's summoning the local coroner. The office of the coroner, which had existed in England since 1194, fulfilled two main duties: to ensure all monetary sums due to the death of a subject were paid to the Crown, and to prompt

⁶⁷ Wright, *A Few Minutes Advice*, 35.

⁶⁸ "Aural Surgery—Coroner's Inquests," 558

investigations into unexplained deaths.⁶⁹ As Pamela Fisher explains, until 1887, there were no clear definitions for the circumstances under which an inquest would be held, and there remained inconsistencies in coroners within different districts operating under different benches of magistrates.⁷⁰ Inquests were further complicated by the fact coroners could not instigate proceedings until a suspicious death was reported to them and in some cases, up to eight days were allowed to report a body.⁷¹ Jurisdiction over a body usually depended on where the body was found—even if it was miles from its residence or parish community—and inquests could not proceed without a body. The coroner's court, however, was an inquisitional investigation into the cause of death rather than a legislation court. Only in cases reaching verdicts of murder or manslaughter were the cases passed to a higher tribunal to determine culpability and/or place charges.

Any deaths that did not fit into “normal” structures of registration and explanation were subjected to a public inquiry in a coroner's court, particularly those concerned with accidental, suspicious, violent, or “unnatural” deaths, which made up roughly 5-7 percent of annual deaths.⁷² The coroner's court usually consisted of the elected coroner, a jury of between twelve and twenty-four “good and lawful” men, and after 1836, medical practitioners summoned to provide evidence. Members of the jury were mostly tradesmen from around the parish where the deceased was found dead; some, or perhaps all, of them may have known the deceased since parishioners

⁶⁹ Pamela Fisher, “The Politics of Sudden Death: The Office and Role of the Coroner in England and Wales, 1726-1888.” PhD Thesis, University of Leicester, 2007. Elizabeth T. Hurren, “Remaking the Medico-Legal Scene: A Social History of the Late-Victorian Coroner in Oxford,” *Journal of the History of Medicine and Allied Sciences* 65.2 (2010): 207-252.

⁷⁰ Fisher, “The Politics of Sudden Death,” 6.

⁷¹ Hurren, “Remaking the Medico-Legal Scene,” 211.

⁷² Ian A. Burney, “Viewing Bodies: Medicine, Public Order, and English Inquest Practice,” *Configurations* 2.1 (1994): 33-46.

scarcely travelled beyond their parish boundaries. Jury members might have also known witnesses summoned to the inquest, which may have helped them assess the veracity of witness testimony. The jury was also able to ask witnesses any questions they wanted, obtaining powers to dictate the direction of evidence.⁷³ The inquests were usually held in public houses depending on the vicinity of the death, for in many parishes, these buildings provided the only available rooms large enough for a coroner's court.⁷⁴ As Ian Burney stresses, in the gin-soaked atmosphere of pubs, the inquests further enacted the "openness" of the investigations, confirming the validity of the inquiry. The presence of the body in such public places and the multiple viewing of the body meant that inquests were "often episodic, contingent affairs, dictated to by circumstances rather than legal form," no doubt owing to the rapidly decomposing nature of the body.⁷⁵

The investigation into Whitbread's death proceeded on Monday 24 June, at Carpenter Arms Public house in Hoxton, overseen by the coroner Mr. Baxter, a relative of Whitbread's. It is likely Baxter used his position to inquire into the death of his family member, wanting to provide an explanation into the cause of Whitbread's sudden demise. The investigation was a public affair; the coroner heard witnesses who described the circumstances leading to death, and even local gossips were able to provide any suspicions they held. Inquests usually began with the swearing in of the jury summoned to serve, followed by the examination of the body by the coroner and jury, as was the standard until 1926.⁷⁶ Further, as Burney notes, the mandatory viewing of the body reflects an epistemological role of the dead body as an investigative site, for the inquest was

⁷³ Fisher, "Politics of Sudden Death," 121.

⁷⁴ Thomas R. Forbes, "Coroners' Inquests into the County of Middlesex, England, 1819-1842," *Journal of the History of Medicine* 32 (1977): 375-394; 377.

⁷⁵ Ian A. Burney, *Bodies of Evidence: Medicine and Politics of the English Inquest, 1830-1926* (Baltimore and London: John Hopkins University Press, 2000), 7.

⁷⁶ Fisher, "Politics of Sudden Death," 184.

the proper relation between expert and public knowledge.⁷⁷ To the public, the “openness” of the inquests validated their trustworthiness, and thus, inquests were swiftly convened, proceeding within days of an inquirable death.⁷⁸ As the practitioner who treated Whitbread, Turnbull would have been summoned to the court as a witness to provide testimony and explain the circumstances leading to Whitbread’s death.

Mr. Winkman, “a medical gentleman” from the neighbourhood, conducted the post-mortem examination. The 1836 Medical Witness Act ensured Winkman was provided a fee of one guinea from the parish poor rate for providing evidence at the inquest, plus a further guinea for conducting a post-mortem examination at the request of Baxter. Death, Winkman reported, was produced by “an extensive inflammation of the brain, which, in his opinion, was occasioned by natural causes, and that neither the operation, nor the inflammation [sic] of the throat, had anything to do with it.”⁷⁹ Based on eyewitness reports of Whitbread’s death and Winkman’s conclusions, the jury returned a verdict of “Natural death by the visitation of God.” Thomas Forbes’ study has revealed that this explanation was used for 80% of accidental or sudden deaths during the first half of the century in Middlesex, a “discouraging proof of the popularity of this all-encompassing and labor-saving formula.”⁸⁰ This explanation was so popular that by 1819 coroners were using inquisition forms with this phrase already printed.⁸¹ Furthermore, a verdict of natural death meant that suspicion had been unwarranted, allowing for the return of good public order, as

⁷⁷ Burney, “Viewing Bodies”; Burney, *Bodies of Evidence*.

⁷⁸ Ian Burney, “Making room at the public bar: coroners’ inquests, medical knowledge, and the politics of the constitution in early nineteenth-century England,” in James Vernon (Ed.), *Re-Reading the Constitution: New narratives in the Political History of England’s Long Nineteenth Century* (Cambridge: University of Cambridge Press, 1996), 123–153, Burney, *Bodies of Evidence*.

⁷⁹ “Charge against a Physician.”

⁸⁰ Forbes, “Coroners’ Inquests,” 386.

⁸¹ Forbes, “Coroners’ Inquests,” 386.

Burney has shown.⁸² The verdict of the duty was recorded as the official cause of death and placed within the General Register Office.⁸³ In some instances, the jury even delivered their verdict with a word of caution or recommendation to implement specific actions to prevent a similar death from occurring. In the Whitbread inquest, no such recommendation was provided, since his death was deemed the result of natural causes.

The inquiry into Whitbread's death created "considerable interest in the neighbourhood," as newspapers such as *The Morning Chronicle*, *The Charter*, *The Era*, and *The Times* reported brief details of the inquest, including quotes from witness depositions and information from the autopsy findings. As historians have argued, newspapers were part of a broader cultural process in which the social utility of news was being rethought and re-evaluated.⁸⁴ Some local newspapers reported nearly all inquests in the parish they covered, while others reported only the sensational ones.⁸⁵ Although the Whitbread inquest drew provocative headlines such as "Charge against a Physician,"⁸⁶ "Alleged death from Improper Surgical Treatment,"⁸⁷ "Death of a Patient whilst under Operation for Deafness,"⁸⁸ these reports reveal few answers about how the public perceived catheterization or what their general perceptions of aural surgery or Turnbull were.

⁸² Burney, *Bodies of Evidence*, 65.

⁸³ The General Register Office was established to track patterns and causes of mortality across England and Wales. All deaths were to be registered from July 1837. Fisher, "Politics of Sudden Death, 20.

⁸⁴ Jones, *Powers of the Press*, 29.

⁸⁵ Aled Jones, *Powers of the Press: Newspapers, Power and the Public in Nineteenth Century England* (Aldershot: Solar Press, 1996), 2-4.

⁸⁶ *The Era*, Sunday June 30, 1839, issue 40; *The Charter*, Sunday June 30, 1839, issue 23

⁸⁷ *The Morning Chronicle* Thursday June 27, 1839, issue 21713.

⁸⁸ *The Chartist*, Sunday June 30, 1839, issue 22.

THE JOSEPH HALL INQUEST

Where the Whitbread inquest ceased to generate significant public interest to draw attention to Turnbull's status as a practitioner, or even discuss the safety of Eustachian tube catheterization, the death of eighteen-year old Joseph Hall was another story. Elisabeth Cawthon has discussed how since the 1840s, it was unusual for the hundreds of inquests in any given year to excite much controversy, as a large percentage of inquiries were predictable and routine, with people dying in ways that were familiar to coroners' juries.⁸⁹ The Hall inquest raised some attention, but more amongst aurists, than the public, though daily newspapers reported the inquest with details from the investigation. Hall's death on Saturday June 22 was strikingly similar to that of Whitbread's only a few days earlier: he had been plagued with a constant irritation in his ear and headed to Turnbull for continuous treatments, and died following the application of catheterization. What made this case different than the first to merit such public and professional interest? First, Hall's young age and witness reports of him being in "perfect health" prior to arriving at Turnbull's raised suspicion about negligence, particularly since Hall was operated on by one of Turnbull's assistants, a Mr. Lyon, instead of by Turnbull himself.

Secondly, the involvement of Thomas Wakley (1795-1862), M.P., and elected coroner of West Middlesex, heightened the publicity of the case. Although no formal qualifications to hold the coroner's office were required until 1926, the office of the coroner was held mainly by members of the legal and medical professions.⁹⁰ Elected in 1839 and serving the office for twenty-three years, Wakley used his platform and period in office to raise awareness to the flaws surrounding medical

⁸⁹ Elisabeth Cawthon, "Thomas Wakley and the Medical Coronership—Occupational Death and the Judicial Process," *Medical History* 30 (1986): 191-202.

⁹⁰ Fisher, "Politics of Sudden Death," 91.

coronership and to emphasize the need for reform.⁹¹ Any individual who picked up copies of *The Lancet* in the 1820s became accustomed with articles on expositions of medical practitioners, campaigns rallying for medical reform, and Wakley's crusade against elitist self-interest, which he aimed at a "public" beyond medical practitioners.⁹² The journal sustained a vitriolic political crusade to raise the standard of medical practice, which, according to Wakley, had become corrupted and nepotistic. Exposing mishaps at London teaching hospitals, insisting for freedom to publish medical and surgical lectures, identifying the work of "unqualified quacks," and revealing the dubious contents of popular nostrums were few strategies of the crusade.⁹³ As the first weekly devoted to the interests of medical practitioners, *The Lancet* also published clinical lectures by distinguished hospital surgeons, including those by Sir Astley Cooper and John Abernethy (1764-1831), although neither surgeon gave permission for publication. Abernethy in particular, applied to the Court of Chancery in 1824 for an injunction to prevent *The Lancet* from publishing his lectures, arguing that copyright was violated; after a prolonged legal battle, the courts granted Wakley publication rights in 1825, on the arguments that hospital lectures constituted public property.⁹⁴ Since these lectures "laid the foundation for claims to authority over good knowledge," as Susan Lawrence points out, they also shaped what passed for "routine, unproblematic

⁹¹ Wakley began his position by instructing parish officers in September 1839 to notify him of all cases of sudden deaths, particularly workhouse deaths, effectively increasing the rate of coroners' investigations. Burney, *Bodies of Evidence*, 53.

⁹² Brittany Pladek, "A Variety of Tastes: *The Lancet* in the Early-Nineteenth-Century Periodical Press," *Bulletin of the History of Medicine* 85.4 (Winter 2011): 560-586.

⁹³ David Sharp, "Thomas Wakley (1795-1862): A Biographical Sketch," *The Lancet* 379 (2012): 1914-1921; Ian A. Burney, "Medicine in the Age of Reform," in *Rethinking the Age of Reform: Britain 1780-1850*, eds. Arthur Burns, Joana Innes (Cambridge: Cambridge University Press, 2007), 163-181.

⁹⁴ Roger Jones, "Thomas Wakley, plagiarism, libel, and the founding of *The Lancet*," *The Lancet* 371 (April 2008): 1410-1411; Ruth Richardson, *Death, Dissection and the Destitute* (Chicago: University of Chicago Press, 2000), 42.

knowledge" and the extent to which certain procedures could be approached and/or approved.⁹⁵ Wakley also often publicized his cases in *The Lancet*, particularly those with interesting medical details that he felt would stir controversy among medical and public circles and support his campaign for reform. The Hall case was among one of Wakley's promotions.

Thirdly, Hall's death became a forum for discussing the merits of Eustachian tube catheterization as a surgical procedure. On the public front, commentators remarked on the effectiveness of the procedure and the qualifications necessary for employing it; accusations of quackery persisted and undermined the value of aural surgery. For aurists, the public interplay severely damaged their attempts for surgical consensus and undermined their attempts for maintaining their authority as surgical specialists; they feared public attacks would severely damage the credibility of aural surgery as a profession.

The inquiry into Hall's death commenced at Montague Arms in Russell Square in front of Wakley and a jury of tradesmen.⁹⁶ As soon as the jury was sworn in, solicitor Mr. Sleap stated he was in attendance on the part of the relatives of the deceased seeking to make sure there was a full investigation into Hall's death. Wakley asked "whether he attended...to inculpate any one, because, if he did, it was only fair that the party should know it." Sleap replied that he was only there to observe the proceedings and ensure it was followed thoroughly. While Wakley remarked he had no objections to Sleap's attendance, he made it clear that in his court no one was on trial. The investigation was simply to ascertain the cause of Hall's death, thus making Wakley's goals clear:

⁹⁵ Susan Lawrence, *Charitable Knowledge; Hospital Pupils and Practitioners in Eighteenth Century London* (Cambridge: Cambridge University Press, 1996), 165; 21.

⁹⁶ Burney notes that within the traven-centered politics of radical London, Wakley might have continued the use of inquests in pubs not only as a reflection of civic life, but also an expression of properly functioning popular politics. Burney, *Bodies of Evidence*, 81.

the coroner's court was not a court of law run and managed by lawyers, but rather a forum for medical investigation and expertise into the cause of death.⁹⁷

The investigation took place on Wednesday 26 June and Friday 28 June, owing to the fact that a member of Wakley's medical team (Robert Liston) could not attend the jury viewing of the body on the Wednesday evening and Wakley did not think it right to proceed with the investigation with an absence. As Fisher explains, before the 1836 Medical Witness Act, some poor parishes were unwilling to pay for medical evidence to be produced at inquests and some surgeons even refused to testify without payment, sending "unqualified" assistants in their stead.⁹⁸ While a medically-qualified coroner could provide evidence if no medical witness was able, it could be viewed as an abuse of his position in power, as his role was to hear evidence, not produce it.⁹⁹ Furthermore, the availability of medical testimony did not rid inquests of guesswork or prominence of local gossip and rumors that could create further confusion for the jury.¹⁰⁰

The coroner did the bulk of the questioning of witnesses.¹⁰¹ According to the depositions, the statements of George Kimber, ornament composition-maker of Rathbone-place who worked with Hall, and Charles Spradbrow of Gravesend, who was at Turnbull's residence at the time of Hall's death, were imperative for revealing the state of Hall's health prior to his treatment. Kimber,

⁹⁷ Prior to 1840, coroners were not required to have either legal or medical qualification, nor were they any legal requirements for medical testimony to be used as evidence. As Carol Loar explains, the typical coroner's inquest was very formulaic, "revealing little more than the names of the coroner, jurors, deceased, suspects and the jury's verdict." Wakley's campaign to reform medical coronership demanded that medical qualifications become an essential aspect of coronership, and he used his cases to highlight the importance and benefits of medical testimony, particularly autopsy reports, as evidence for juries. Carol Loar, "Medical Knowledge and the Early Modern English Coroner's Inquest," *Social History of Medicine* 23 (2010): 475-491; 478.

⁹⁸ Fisher, "Politics of Sudden Death," 94.

⁹⁹ Fisher, "Politics of Sudden Death," 95.

¹⁰⁰ Cawthon, "Thomas Wakley and the Medical Coronership," 195.

¹⁰¹ Burney, *Bodies of Evidence*, 5.

who was Hall's roommate, had seen Hall the morning before he left for his treatment, and "appeared to be in perfectly good health." Kimber testified he knew Hall had been under treatment for deafness, but did not know of his ever taking any medicine or being ill, but he was aware of Hall's visits to Turnbull, stating

Two months ago [he] first heard that [Hall] went to Dr. Turnbull. [Hall] had been very deaf for about six months, but had become more deaf during the last week of his life. He did not say anything as to the cause of his increased deafness, though sometimes directly after he returned from Dr. Turnbull's he could hear very plainly. He was not so deaf when he first came to town, as he was two months ago. He said that the operation for his deafness gave him great pain the first time it was performed, but not afterwards.¹⁰²

From Kimber's deposition, it was made clear to the jury that Hall was likely suffering from temporary deafness, but in all other respects he was quite well and healthy until his last treatment at Turnbull's practice.

Spradbrow also witnessed Hall in perfectly good health, having encountered him at Turnbull's ten or twelve times on occasion to be treated for deafness, and was "always very anxious to use the instrument."¹⁰³ Several other individuals—as many as thirty, according to some reports—were also at Turnbull's awaiting their turn for treatments. Around 10 o'clock, Hall filled the air pump as full as possible and Spradbrow assisted Hall and Lyon in setting up the instruments for catheterization. Spradbrow clarified they were following the directions outlined by Lyon, who then applied the catheter into Hall's nostril and proceeded with the procedure:

¹⁰² "Inquests in Middlesex: Evidence of Witnesses at the Inquest on the Body of Joseph Hall. From the Depositions taken before the Court of June 26th and 28th, 1839, in the Parish of St. George, Bloomsbury, Mr. Wakley, M.P., Coroner," *The Lancet* 32 (3 August 1839), 690.

¹⁰³ "Inquests in Middlesex," 690.

Mr. Lyon put the long tube up the deceased's right nostril...turned the cock, and let the air out. It escapes in less than a minute. [Spradbrow] then filled the pump with air, and the tube being put by Mr. Lyon up the left nostril, he turned the air on, by Mr. Lyon's desire, strong, a second time. Witness did not turn on the air so strong as he could have done. Mr. Lyon then removed the tube, and asked deceased if he would have it once more. Deceased said "Oh, yes," or words to that effect. Mr. Lyon then put the tune up the left nostril again. Witness filled the pump, and turned the air off exactly as on the first occasion. The tube being emptied the fourth time, Mr. Lyon withdrew it, when, immediately, there was a low gurgling noise in deceased's throat, and then fell back, very gradually, with his head against the top of the chair...and did not speak, or move, or open his eyes again.¹⁰⁴

Hall was then removed from the room and all attempts to resuscitate him failed. At the inquiry, Wakley questioned Spradbrow on whether Spradbrow himself had had the operation performed and what his experiences following it were. Spradbrow testified it had been three weeks since he last had the operation, but he had taken three or four charges at a single sitting. The operation at times "produced a swimming in the head, and a portion of the air appeared to escape by the mouth, and the rest down the throat."¹⁰⁵ He had also witnessed one other patient—an elderly gentleman—go into a fit and faint from the procedure, but he recovered with the aid of smelling salts; Spradbrow did not see the patient use the catheter again, though he still attended Turnbull for other treatments for deafness.¹⁰⁶ Wright also took an interest into the case, providing additional details of the proceedings, including that another witness stated that Hall had fainted during the same operation a month before, and had declared he "would never try the experiment again."¹⁰⁷

These depositions revealed that something had gone wrong with Hall's catheterization, but the question remained whether the procedure itself was the direct cause of death, or merely a by-

¹⁰⁴ "Inquests in Middlesex," 691.

¹⁰⁵ "Inquests in Middlesex," 691.

¹⁰⁶ "Inquests in Middlesex," 691.

¹⁰⁷ Wright, *A Few Minutes Advice*, 38.

product of an underlying disease. Wakley requested a post-mortem examination, viewing it “most desirable in an inquiry of this importance.”¹⁰⁸ Since coroners often had a hand in every step of the inquest procedure (including summoning juries, writing up the documents, publication of recommendations), the coroner could also order a post-mortem in any case he found interesting, attend the autopsy, or even assist the surgeon.¹⁰⁹ Post-mortems were especially beneficial because they were constructed to result in a medically sound verdict beyond a shadow of doubt.¹¹⁰ Although the 1836 Act authorized the coroner to pay for one medical witness per inquest, application could be made to the Home Office for permission to employ additional medical witnesses in exceptional circumstances.¹¹¹ The Hall inquest team included: leading surgeon James Reid (1803-1854), examiner in midwifery and member of the Royal College of Surgeons; Robert Liston (1794-1847), surgeon and Professor of Clinical Surgery at University College Hospital who attended the post-mortem on Turnbull’s behalf; Henry Savage, Professor of Anatomy at Westminster Hospital, attending on behalf of the friends of the deceased; Mr. Lynn, and Richard Quain (1800-1887), Professor of Anatomy at University of London. The body was examined the day prior the inquiry, and according to Reid, it was “a most tedious examination, and necessarily so, and occupied three hours,”¹¹² particularly since the body was already in a state of decomposition. Thus the “examination was not so satisfactory as it might have been.”¹¹³

¹⁰⁸ *The Chartist* Sunday June 30, 1839, issue 22.

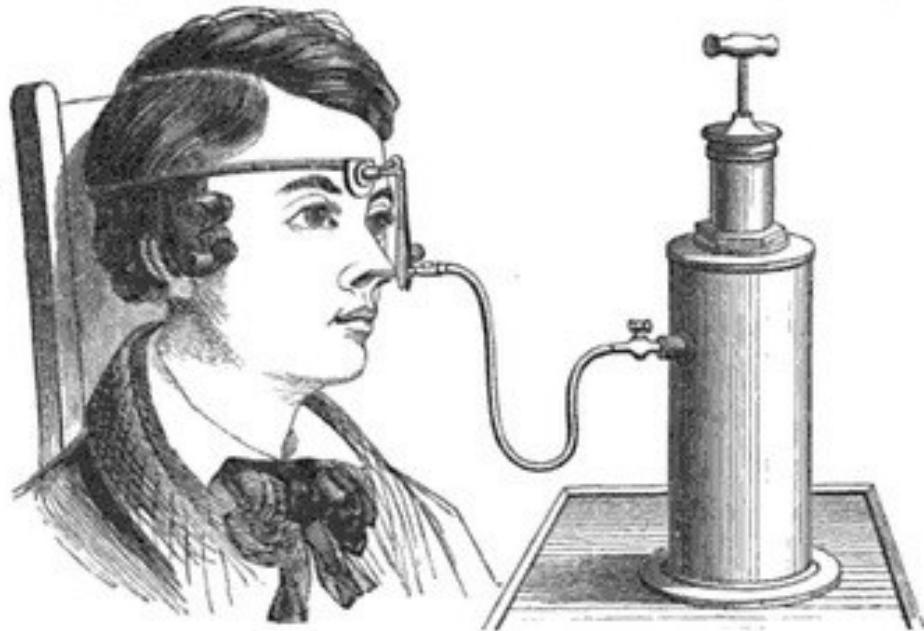
¹⁰⁹ Elizabeth Cawthon, “Thomas Wakley and the Medical Coronership: Occupational Death and the Judicial Process,” *Medical History* 30 (1986): 191-202; 194.

¹¹⁰ Fisher, “Politics of Sudden Death,” 102. Burney, *Bodies of Evidence*, 58,

¹¹¹ Burney, *Bodies of Evidence*, 108.

¹¹² *The Chartist*, Sunday June 30, 1839, issue 22.

¹¹³ “Inquests in Middlesex,” 691.



*Image 16: Example of an air press & catheter set-up that was likely used on Joseph Hall. Source: William Wilde, *Practical Observations on Aural Surgery* (London, 1853).*

Reid conducted the full autopsy some sixty-eight hours after death, opening the body with Savage in front of the other medical experts and made a “long general anatomical statement” about his findings to Wakley and the jury. The opening of the body in front of an audience was a crucial reflection of the importance of autopsies. Savage describes the body in great detail:

The body was that of a robust muscular male, about five feet eight inches in length, and without the slightest appearance of deformity; on the contrary, the features, although slightly puffed up by the incipient decomposition, were good-looking, and the trunk and limbs remarkably well proportioned. The skin of the face, upper part of the chest, and arms, were changed to a greenish hue, but the epidermis was not in any place detached.¹¹⁴

¹¹⁴ Henry Savage, “A Recent Case of Sudden Death, with remarks,” *London Medical Gazette* 24 (1839): 616–620.

Only the organs implicated in the possible cause of death were examined during the autopsy, in this case, Hall's brain.¹¹⁵ The facts relative to the case revolved around the finding of bleedings: the scalp had more blood than usual and between the dura mater and inner membranes of the brain, there was a "thin layer of blood, about two or three teaspoonfuls, principally at the left and posterior part. Under the thin membranes of the brain, and in the small veins, were globules of air, which putrefaction might have produced."¹¹⁶ Upon vertically sawing the face to get a clear view of the Eustachian tube, the "tubes were found pervious," and Reid found no damage to them. However, upon inspecting the ears, Reid found that while the right tympanum had no clear indications of injury, the left was "swollen, and there was a slight effusion of blood into it, forming a small clot," but the bones presented no sign of disease or injury. Moreover, as an air douche was used with the catheterization, Reid found no evidence of an aneurysm or air in any other blood vessels. Reid concluded that the rupture of a very small vessel, possibly the result of disease, might have produced the blood found in the tympanum. He speculated it could have been blown there through catheterization, and attributed the cause of death to apoplexy, "to which the deceased may have been predisposed, as he was a stout, plethoric man."¹¹⁷ However, Reid could not confirm what the cause of the apoplexy was.¹¹⁸

Liston, Savage, Lynn and Quain were all present as Reid conducted the autopsy. Although they all agreed upon the facts of the case and Reid's autopsy report, they disagreed on the cause of death. Savage saw no difference on the quantity of blood effused on the brain, but claimed he

¹¹⁵ David Harley, "Political Post-mortems and Morbid Anatomy in Seventeenth-century England," *Social History of Medicine* 7.1 (1994): 1-28. Carol Loar, "Medical Knowledge and the Early Modern English Coroner's Inquest," *Social History of Medicine* 23.3 (2010): 475-491.

¹¹⁶ "Inquests in Middlesex," 691.

¹¹⁷ "Inquests in Middlesex," 691.

¹¹⁸ Forbes explains that a fit or apoplexy, which were often used synonymously, was a common cause of death, until it abruptly disappeared from inquisitions after 1831. Forbes, "Coroners' Inquests," 387.

observed disease in both ears, though he did not specify what disease or to what extent. He attributed the primary cause of death to the injection of cold air from the air pump to the catheter and remarked that it appeared Hall might have been predisposed to some sort of nervous condition that contributed to his death. He also remarked that it was not clear whether the “extravasated blood” observed by Reid was extravasated during life, a statement that was echoed by Liston. According to Liston, it appeared Hall probably died during a fit of fainting, for it appeared that some spasm or other affliction of the heart was the cause of death. The men all agreed nothing precisely satisfactory could be derived for the cause of death due to the decomposed state of the body.

Wakley inquired why no notice of Hall’s death was sent by Dr. Turnbull or Mr. Lyon to the summoning officers of the district immediately after death, even though up to eight days were allowed for notification. Inspector Sampson Campbell of the East Division of Police testified that he did not hear of the death until Sunday evening, after being told by a Mr. Bye (possibly Hall’s employer) that a death had occurred in Turnbull’s practice of rather suspicious circumstances and he requested Campbell to investigate.¹¹⁹ At the inquest, Wakley asked Turnbull and Lyon to provide some explanation of their conduct. Turnbull admitted the death occurred at his residence, but denied blame, remarking that he wasn’t aware of the death until three hours after it happened; Lyon, on the other hand, argued that Turnbull was perfectly aware of the circumstances and was in the next room attending to gentlemen, when Hall expired.¹²⁰ The case also raised further confusion, due to conflicting witness reports claiming that it was Hall himself who set the fourth

¹¹⁹ Inquests in Middlesex,” 692.

¹²⁰ “Adjourned Coroner’s Inquest,” *The Times* Monday 1 July, 1839, issue 17082, 7.

and final charge instead of Lyon (who gave the first three) thus bearing responsibility for his own death.

On the Friday morning, Wakley addressed the jury at “considerable length,” and after hearing all the medical evidence and viewing the body, the jury returned with a verdict of “Accidental Death,” and cautioned “Dr. Turnbull not in future to allow his patients to use the instruments themselves.” Additionally, the warrant for the interment of Hall’s body was passed on to his friends.¹²¹

DEFENDING A DAMAGED REPUTATION

Inquests were complex social events with several levels of participation by interested parties. As Burney has demonstrated, the publicity of inquests approached the creation of a disciplined, responsible public embracing the virtues of “openness” as a manifestation of their trust in the process.¹²² The judgments of the inquest jury were influenced by their attitudes to the deceased as well as their own medical knowledge. These attitudes in turn, influenced the opinions of the public, who could read details of the case in newspapers and effectively educate themselves on medical and surgical issues of concern. The readership thus became part of the decision-making, as formers of opinions and “witnesses” to the case as they engaged with details presented in newspapers. As “[t]he fruits of that hand-shaking and whispering [following the Hall inquest]

¹²¹ *The Chartist*, Sunday June 30, 1839, issue 22.

¹²² Burney, *Bodies of Evidence*.

appeared in all the daily newspapers," so aural surgery was thrust into the limelight, where the fragility of the field's surgical authority was subject to intense scrutiny.¹²³

To reclaim their authority, aurists turned to newspapers to appeal directly to the public and outline their qualifications and credentials for practice in order to promote or defend their practice. Medical journals, on the other hand, were used as forums for defending their identity as specialists, emphasizing the claim that specialist treatment reflected a particular set of skills rather than challenged medical orthodoxy. James Yearsley, for instance, attempted to make surgical treatments for aural diseases more intelligible to the general public, in hopes that the well-informed patient would avoid the wares of "quack aurists." In *The Morning Chronicle*, he defended Eustachian tube catheterization, which he argued was disastrously misapplied by Turnbull: "Catheterism of the Eustachian passages is eminently scientific; and the results of that operation are not only perfectly successful, but constitute one of the most beneficent triumphs of our art. Injury has never been heard of as accruing from its practice; and to this every professional man of skill bears witness."¹²⁴ While some aural cases may lead practitioners to speculate on the value of catheterization, Yearsley insisted only by enabling proper practice, methods of treatment, and care, could the procedure be justified—the deaths of Whitbread and Hall were not, nor should be, a reflection of the profession as a whole. In his bid for professional recognition, on the other hand, Yearsley turned to *The Lancet* and the "judicious practitioner," outlining the proper procedures for Eustachian tube catheterization and distinguishing its efficiency as both a diagnostic and remedial agent in order to defend its use as a surgical procedure—and hence, protect aural surgery's identity as a specialty.

¹²³ William Wright, *Deafness and Diseases of the Ear: The Fallacies of Present Treatment Exposed, and Remedies Suggested* (London: Thomas Cautley Newby, 1860), 59.

¹²⁴ James Yearsley, "Deaths Under Surgical Operation," *Morning Chronicle* (July 2, 1839): 59

As the case was reported in the newspapers, aurists feared negative portrayals of aural surgery—or at the very least, Eustachian tube catheterization as a surgical procedure—and the public interplay that followed would derail their attempts for surgical consensus and undermined their credibility as surgical specialists. Since newspapers also explained the procedure and tools used for Eustachian tube catheterization, the procedure itself became an imperative aspect of debate and aurists and general medical practitioners expressed their variegated opinions. A significant aspect of the debate centered on the sequence of events that led to Hall's death, namely, whether or not Hall himself turned that fatal “charge” or whether it was Lyon or Turnbull who did. Witness testimonies conflicted on this point, some asserting that Lyon had set up the catheter under Turnbull's direction, and let Hall turn the stop-cock, while others testified that Hall insisted on a fourth charge despite Lyon's protests. This issue had several bearings: first, it questioned the nature of a surgical instrument being used by skilled hands. If Hall had used the instrument, himself being untrained in surgical arts, then neither Lyon nor Turnbull could be held responsible for his death, but their surgical authority was severely discredited—for what special skills did they merit if a patient himself could apply the instrument and treat himself?

Secondly, conflicting witness testimonies and different newspaper reports of the verdict raised questions about the role and power of public opinion. Some reports declared the jury disparaged Turnbull for his “unprofessionalism and unrefined skills,” while others indicted Lyon. These conflicting reports led Wakley to print a correction of the jury's verdict, declaring “The terms of the verdict have been falsely reported in all of the political journals of the day...lead[ing] us to fear that some interested party has been tampering with the press.”¹²⁵ The verdict, as signed by Coroner and Jury, maintained “That Joseph Hall accidentally, causally, and by misfortune, *came*

¹²⁵ “Verdict in the Case of Joseph Hall,” *The Lancet* (13 July 1839): 587.

to his death by using a certain instrument called an air-press, intended for the cure of deafness.”¹²⁶ Thrust into the limelight, the fragility of aural surgery’s authority was thus subject to intense scrutiny.

Disputes between aurists were messy and inclusive in the pages of medical periodicals, but there were still aurists who took these debates public, as Alfred Barker did, loudly proclaiming “THAT THE DEAF HAVE QUITE AS MUCH TO FEAR FROM THE INEXPERIENCE OF PROFESSIONAL MEN, AS THEY HAVE FROM THE MORE DARING AND LESS SCRUPULOUS TINKERINGS OF ARRANT QUACKS AND ROUGH KNAVES!”¹²⁷ Lay persons did, however, engage with discussions in periodicals about quackery; some, like *The Lancet*, provided an open forum for discussions and for exposing and denouncing specific quacks.¹²⁸ Savage, for instance, remarked that the duty of those “guarding the public against quackery, is incumbent on every individual member of the medical profession, but, more particularly does it devolve upon those who have obtained more than ordinary popular confidence.”¹²⁹ The public, however, as the Birmingham aurist William Dufton (1803-1859) explained, are not to blame in “having recourse to the empiric, in cases of deafness,” as the medical profession, whose prescriptions seldom provided any relief and thrust the public into the hands of quacks.¹³⁰

¹²⁶ “Verdict in the Case of Joseph Hall,” 587.

¹²⁷ Mark W. Weatherall, “Making Medicine Scientific; Empiricism, Rationality, and Quackery in Mid-Victorian Britain,” *Social History of Medicine* 9.2 (1996): 175-194; 185. Alfred Barker, *A Treatise on Deafness and Rupture, with the new mode of cure* (London: published by the author and sold by Gilbert, 49 Paternoster Row), 6.

¹²⁸ K. Codell Carter, “The Concept of Quackery in Early Nineteenth Century British Medical Periodicals,” *The Journal of Medical Humanities* 14.2 (1992): 89-97.

¹²⁹ Henry Savage, “On Quackery and Ear Medicine,” *The Lancet* 32 no.835 (31 August 1839): 823-828; 825.

¹³⁰ William Dufton, *The Nature and Treatment of Deafness and Diseases of the Ear* (London: John Churchill, 1844), xi. A sermon was published after Dufton’s death: J.B. Marsden, *William Dufton, Esq., M.R.C.S., preached at St. Peter’s Birmingham, on Sunday 23rd October, 1859* (London: Hamilton, Adams, 1859). In 1844, Dufon established the Relief of Poor Persons Afflicted with Deafness.

AURISTS' RESPONSES TO THE HALL INQUEST

While newspaper accounts of the Hall case generated little public response, a different type of discourse took place in the pages of *The Lancet* and *The London Medical Gazette*, two of the most popular medical periodicals at the time. As historians have noted, practitioners often employed key rhetorical strategies to construct their audiences and make claims for their science; audiences and readerships of periodicals set up a sort of “text-based” accounts of popular science. Within this context, we can evaluate the immediate responses from aurists following the outcome of the Hall case. Turning to medical periodicals to defend their fields, aurists employed a more consolidated approach to acknowledge the scientific merits of their claims—rather than arguing for their long periods in practice or their success with publications and/or instruments, in the pages of *The Lancet* and *The Medical Gazette*, prominent aurists invoked epistemological claims to assert their knowledge of the art of aural surgery.

As Andrew Wear explains, claims to expertise and authority were difficult to assert if they were based upon a practitioner’s experience, because “orthodox” practitioners could easily be lumped together with the quacks and empirics. The best mode of attack against “quack aurists” then, was to highlight their “scholarly error”—gross misconduct upon expertise aptitude.¹³¹ Thus, general discussions in these periodicals on both the nature of medical coronership and the merits of Eustachian tube catheterization transformed the Hall inquest into an engaging and active discourse which relied on medical expertise and addressed the needs of the medical profession, particularly in its reform crusade against quackery. The Joseph Hall inquest was ideal for drawing attention to the value of medical expertise in postmortem examination, as well as on the nature of

¹³¹ Andrew Wear, “The Popularization of Medicine in Early Modern England,” in *The Popularization of Medicine 1650-1850*, ed. Roy Porter (London & New York: Routledge, 1992), 17-41; 20.

surgical procedures offered outside the hospital. Although the *Lancet* did not publish any extended discussions on the case, the publication of the deposition and particularly the correction of the verdict was enough for aurists to remark on the value of aural surgery.

Aurists appealed to the public and their professional brethren by insisting that catheterization was safe and painless only in skilled and specialized hands. Moreover, trained expertise in surgical matters were also beneficial for making a relevant diagnosis, in order to determine whether an operation as Eustachian tube catheterization was necessary—and if so, when and to what degree.¹³² In an editorial letter to *The Lancet*, Toynbee argued that “No one ought to undertake the performance of the operation who is not acquainted with anatomy, and who has not attained considerable dexterity and tact by the passage of instrument on the dead subject.”¹³³ Yearsley also concurred that the procedure required “considerable manual dexterity, delicacy, and experience” and should not be “made an engine of quackery and mischief.”¹³⁴ Turnbull was an itinerant practitioner and a danger to the public, Yearsley continued, insisting that it “is for the credit of a most valuable surgical operation, when skillfully performed, and for the advancement of a branch of medical science hitherto to much neglected in this country.”¹³⁵ Even Lyon defended the use of catheterization, insisting that the procedure “is considered by aurists of eminence as one of the minor operations of surgery.”¹³⁶

¹³² John Kirkup, *The Evolution of Surgical Instruments: An Illustrated History from Ancient Times to the Twentieth Century* (Novato, California; Jeremy Norman Co., 2006), xi.

¹³³ Joseph Toynbee, “Injection of Air into the Cavity of the Tympanum,” *The Lancet* 32 (13 July 1839): 583-584; 584.

¹³⁴ James Yearsley, *Deafness successfully treated through the passages leading from throat to the ear; as satisfactorily shewn in a Report of the Medical Proceedings of the Institution for curing diseases of the ear* 3rd edition (London Nisbet & Co., 1841), vi.

¹³⁵ *The Morning Chronicle* 1839.

¹³⁶ T. Lyon, “Operations by Mr. T. Lyon,” *The Lancet* 32 (10 August 1839): 734-735; 734.

Wright, on the other hand, remarked that “these unfortunate occurrences [of the Hall inquest] have been taken advantage of,” by practitioners switching professions and professing in advertisements new treatments for deafness.¹³⁷ A Dr. Graves, who published bills on homeopathy around 1834, advertised that he can cure deafness “*by external remedies*” and claiming that “he is master of *sixteen* languages; and that he was AURIST to the imperial court of Russia.”¹³⁸ It was ridiculous and hardly expected, Wright argued, that it “will excite no astonishment if the...two deaths were to induce the physician of the Cham of Tartary, or of the Emperor of China, to expatriate to this country, and advertise themselves as AURISTS, stating that they could cure all species of deafness, by merely breathing on the ears. There are thousands imbecile enough to believe any impudent adventurer, who would try the experiment.”¹³⁹ He was particularly opinionated about the limitations of catheterization, and the habits of aurists to imitate the French and German approaches to catheterization, stating “I have...seen and known great numbers of patients who had left this country full of hope, to visit Paris, and even Berlin, to consult Deleau, and also Kramer...only to return disappointed, and, in many instances, worse than when they went.”¹⁴⁰ He admitted that he employed the procedure during the early stages of his career, but like Wathen, abandoned it for its ineffectiveness; Wright further attributed the notoriety the procedure gained following Deleau’s success as nothing more than a fashionable trend.¹⁴¹

¹³⁷ Wright, *Few Minutes Advice*, 40.

¹³⁸ Wright, *Few Minutes Advice*, 41.

¹³⁹ Wright, *Few Minutes Advice*, 41.

¹⁴⁰ William Wright, *Observations and Facts Relative to those born deaf, and consequently dumb* (London: William Strange, 1843), 5.

¹⁴¹ William Wright, “On Catheterism of the Eustachian Tubes,” *The Lancet* 649.

The self-fashioning of aurists was in part overshadowed by the bickering between Lyon and Turnbull over their responsibility of Hall's death. Immediately following the Hall verdict, Turnbull denied any role in Hall's death:

Much misapprehension has arisen from a recent occurrence which I deeply regret should have happened under my roof. I allude to the death of Joseph Hall, on whom an operation was performed by Mr. Lyon, a surgeon, formerly, but no longer, residing with me...With regard to that operation, I have only to repeat that I had nothing to do with it. I did not authorize it—I was not cognizant of it—nor was I made acquainted with the result until three hours had elapsed. With regard to the case of Mr. Wm. Whitbread, which had been referred in connection with the foregoing, I beg to say, that, to my knowledge, I never saw that individual, and certainly never performed on him any operation."¹⁴²

Shortly after, Lyon wrote to the editor of *The Morning Chronicle*, defending himself:

SIR—A letter appeared in your paper of this day by Dr. Turnbull, containing a number of imputations which I consider due to my own character to contradict. In the first place, I never resided with Dr. Turnbull. In the second, before I performed the operation upon Joseph Hall I told the doctor I was going to do so, and it met with his approbation; and in all cases of deafness I acted with his cognizance and authority.¹⁴³

According to witness depositions, Lyon and Turnbull also had different roles within the practice at Russell Square. Several witnesses stated that Lyon was responsible for operating upon the poor in one room, while Turnbull attended to the gentry in another room.

Additionally, Lyon defended himself against claims in periodicals stating that he was an "unqualified practitioner" who was "unskilled" in performing Eustachian tube catheterization. The *London Medical Gazette*, for instance, in publishing a summary of the Hall verdict, described Lyon

¹⁴² *London Medical Gazette* 24 (July 1839), 576; *The Morning Chronicle* (8 July 1839).

¹⁴³ *The Morning Chronicle* (10 July 1839).

as Turnbull's assistant, "who operated on Hall, not being, we suppose, a medical practitioner."¹⁴⁴ The statement apparently infuriated Lyon, who immediately requested the editor to print a correction stating that he was a member of the Royal College of Surgeons since 1823.¹⁴⁵ While Turnbull remained quiet in defending himself against accusations of quackery, particularly from Wright and Toynbee, Lyon almost demanded the profession acknowledge his skills as a practitioner. He wrote a letter to the editor of *The Lancet*, which was also requested to be reprinted in the *London Medical Gazette*:

In some of the articles which have lately been published in your Journal respecting the unfortunate case of the late Joseph Hall, it has been assumed that the surgeon who injected the Eustachian tubes had not sufficient anatomical knowledge and skill to perform it, and thence a chain of reasoning has been attempted to account for the death. To show the fallacy of this mode of argument, I shall refer to two operations of great magnitude performed by me, and recorded in the "Medical Gazette"...These were cases of tumours situated directly upon, and in contact with, the common carotid arteries, both of which had a successful termination...The operation of injecting the Eustachian tubes is considered by aurists of eminence as one of the minor operations of surgery...I shall leave it to the profession to judge whether a surgeon capable of performing the operations above alluded to was not, also, capable of performing one of the easiest of the minor operations in surgery.¹⁴⁶

Here, Lyon drew on the profession's need to categorize surgical procedures according to their level of difficulty. But there was no established consensus on Eustachian tube catheterization, either on its use as a diagnostic or remedial agent, nor on the methods necessary to employ the procedure. Yearsley, for instance, argued that catheterization was effective in most cases of nervous deafness and attempted to categorize the differences in the procedure as undertaken by

¹⁴⁴ "Death from Pumping Air into the Eustachian Tube," *London Medical Gazette*, 24 (July 1839), 575.

¹⁴⁵ *London Medical Gazette* 24 (July 1839): 575-576.

¹⁴⁶ T. Lyon, "Operations by Mr. T. Lyon," *The Lancet* 32 (August 1839): 734-735; "Note from Mr. Lyon," *London Medical Gazette* 24 (August 1839): 736.

those considered as reputable aurists: he insisted the procedure as employed by the German Wilhelm Kramer and the French Nicolas Deleau—which consisted of using a silver curved catheter and an air press—was methodologically superior to that used by Turnbull because these aurists were selective in its application, rather than applying it in *every case* of deafness, as Turnbull had.

Turning to foreign descriptions of catheterization was, in part, due to the confused state of aural surgery in Britain. Despite aurists' attempts to self-fashion themselves as scientific practitioners, the prevalence of advertising and bickering among aural surgery left the field in a state of disarray, as Wright explained: "As everything German is fashionable, apothecaries, &c., from Wales and Ireland, and general surgeons in London, suddenly started into full-fledged aurists, although no one who knew them would give them credit for the least knowledge of the subject."¹⁴⁷ Savage was particularly vindictive:

How strikingly different is the practice of aural surgery with us! One would be inclined to suppose that diseases of the ear were considered by our best surgeons as utterly unworthy of their attention; for, with one or two exceptions, this department of our science is engrossed by a set of the most bare-faced quacks that ever the world produced...Who is not disgusted at the public advertisements which this case of Joseph Hall seems to have called forth [?]"¹⁴⁸

The entire profession of aural surgery, he declared, was nothing but quackery, and aurists who appealed to the public through newspapers were evidently quacks with their blatant advertising. The Hall inquest and the absurd responses from aurists only "afforded these ancient aurists a rare opportunity, which did not escape their jealous watchfulness, of rising a clamour against the new system, and bringing its advocates into disrepute...The rival aurists now amused the public, and

¹⁴⁷ Wright, "On Catheterism of the Eustachian Tubes," 649.

¹⁴⁸ Savage, "On a Recent Case of Sudden Death," 620.

disgusted the profession, by various explanatory counter-statements.”¹⁴⁹ He advised the reader to stick to the “great fathers of modern ear medicine,—Kramer, Itard, and Deleau, under whose sacred names the catheter is crammed down the Eustachian gullet of the capricious and credulous, day after day,” and whose qualifications were not blatantly spread through the advertising section of the newspaper.¹⁵⁰

As aural surgery continued to face public and professional scrutiny, it became necessary to defend the scientific aspects of the practice. Even editors of periodicals supported this movement. The editors of the *London Medical Gazette*, for instance, suggested aurists spend more time discussing and defending the scientific aspects of the procedure rather than boasting their own skills as surgeons:

This [Hall] case is so exceedingly interesting, that we hope the medical witnesses will publish their opinions...If we understand the evidence, it is clear that Hall's death was the direct effect of the operation. Somebody who professes to cure deafness by catheterizing the Eustachian tube has taken this opportunity of praising himself up to the skies; but we would suggest to him, in a quiet, friendly way, that as good wine needs no bush, so a really good operation needs no puffing.¹⁵¹

Eustachian tube catheterization fundamentally became symbolic for aurists' movement towards surgical consensus and a unified profession. By defending a procedure which had been employed since the eighteenth century, aurists aimed to restore professional trust in their field. In part, the Hall inquiry raised questions whether the instruments for catheterization—the catheter and the air press—were *directly* responsible for the death, and whether they were suitable as a surgical procedure, shedding more light on the Itard-Deleau debate over the use of *douches d'air*.

¹⁴⁹ Henry Savage, “On Quackery and on Ear Medicine,” *The Lancet* 32 (31 August 1839): 823-828.

¹⁵⁰ Savage, “On Quackery and on Ear Medicine,” 827.

¹⁵¹ “Death from Pumping Air into the Eustachian Tube,” *The London Medical Gazette* 24 (July 1839), 538.

According to Reid's autopsy report, there was no evidence to account for Hall's sudden death, and even less evidence to link the instrument to its cause though the state of the heart, eardrum, and blood vessels could be used to speculate blame upon the instrument.

However, the popularity and over-dependency of catheterization led some commentators to dismiss it as a quack gimmick, used to enhance the reputation of a practitioner. Savage, for instance, contended that: "It is out of place to proffer any remarks on the use of the air douche...[but] the air douche, as applied in England, has not been successful in ten cases which have come to my knowledge."¹⁵² An anonymous writer also added: "Air presses are now at a discount among quacks. So much the better. Catheterism of the Eustachian tube, as we have seen, may, like everything else, be absurd."¹⁵³ Savage further contended that

In all cases, whether recent or ancient, the douche should be used occasionally only, and general treatments resorted to. Under these circumstances it is exceeding the bounds of justice to include all those who profess to cure deafness by exclusive measurers, air-press or no air-press, under the opprobrious epithet of quacks, especially as the principles of rational treatment are few, plain, and simple, and are easily deductible from a limited anatomical examination of the organ. Moreover, when such persons assert, in the face of the whole world, through the medium of pamphlet, book, or any other species of advertisement, that they can cure all complaints of this description, ought not such communications to be regarded as forming a part of that great system of imposture by which the public are every day misled, and prevented from seeking relief at the hands of those who really merit their confidence?¹⁵⁴

Even though not all aurists agreed on the necessity of the procedure—Curtis, for instance, was heavily critical of its over-dependency, and Wright dismissed its ability as a "certain cure"—

¹⁵² Henry Savage, "On a Recent Case of Sudden Death, With Remarks," *The London Medical Gazette* 24 (July 1839), 620.

¹⁵³ Chirurgus, "Catheterism of the Eustachian Passages," *The Lancet* 32 (3 August 1839): 685-685; 686.

¹⁵⁴ Savage, "On Quackery and Ear Medicine," 828.

Savage's statements made it difficult for aurists like Yearsley and Wright who struggled for British aural surgery to gain a place in the spotlight. Yearsley noted, "It is to be regretted that this great improvement in aural surgery should have been thus abused, and that a diagnostic and remedial agent, which is calculated to revolutionize this branch of medical science, should consequently have been exposed to the risk of utter abandonment on the very threshold of its introduction into this country."¹⁵⁵

THE HEIGHT OF PUFFERY

There are two modes of puffing, an anonymous writer explained to *The Lancet*: "the one more gross, and for that reason probably more effective; and the other less apparent, but not for that reason the less to be reprehended. Of the former class, the Turnbulls, Curtises, Yearlseys, Grimstones, the eye, ear, tonsil and snuff nostrum-mongers, it is not my intention to speak."¹⁵⁶ The fallout of the Turnbull case had severe repercussions for aural surgery's claim to surgical authority, especially light of the campaigns for medical reform. These campaigns aimed to configure medicine as a unique body of knowledge; in short, they aimed to reconstruct a drastically different set of values for what it meant to practice medicine and surgery, and what type of qualifications were necessary to entertain such notions—creating a particular vision of what medicine was and should be.¹⁵⁷ Only by reorganizing and defending the tenets of aural

¹⁵⁵ Yearsley, Contributions to Aural Surgery, 3.

¹⁵⁶ Midas, "Strictures upon Mr. Wright's Criticism of Catherism of the Eustachian Tubes," *The Lancet* (1843), 712.

¹⁵⁷ Michael Brown, *Performing Medicine: Medical Culture and Identity in Provincial England, c.1760-1850* (Manchester University Press, 2011).

surgery, could aurists protect not only the reputation and legitimacy of their speciality, but also the lives of patients.

The Medical Times, for instance, took full rein of the crusade for reform. In October 1839, it launched with a preface stating that “[t]he work was commenced with a firm determination to unmask Quackery, and by upholding the honor and dignity of Medicine—advance at once the well-being of the Profession, and the great interests of humanity.”¹⁵⁸ By striking at the root of the “mammoth evils,” the periodical clarified their stronghold against a particular view considered to be capable of destroying the profession—namely, quackery—and taking upon the responsibility of naming those considered as dangers to the profession. Amongst the first few practitioners named in the periodical, was Turnbull: “Dr. Turnbull, of Russell Square, is certainly a subject for our dissection. We must, however, have the fullest particulars, and shall be obliged by their transmission by any of our numerous correspondents.”¹⁵⁹ Another practitioner named in the first month of the journal’s existence was Curtis: “AURISTS—J.H. Curtis is the first performer of humbug in this department; he has an aide-de-camp who can cure a man who has been deaf as a post for the last half century. Curtis does not, we understand, account for a shilling for the immense sums received for his Dispensary for Diseases of the Ear; his stable that was.”¹⁶⁰ To this correspondent, the editor replied: “Yes, Curtis made his last display very characteristically, in the Bankrupt List,” indicating not only Curtis’ fall from grace (see Chapter 4), but his place amongst exposed quack aurists like Turnbull.¹⁶¹

¹⁵⁸ *The Medical Times* vol.1 (October 1839-March 1840).

¹⁵⁹ *The Medical Times* vol.1, no.3 (Saturday October 12, 1839), 20.

¹⁶⁰ *The Medical Times* vol.1, no.5 (Saturday October 26, 1839), 36.

¹⁶¹ *The Medical Times*, vol.1, no.6 (Saturday November 2, 1839), 44.

The correspondence section of the periodical particularly reveals the disdain medical practitioners had over Turnbull's return to practice following the coroner's inquest. They wanted to make it evermore that "The Quack M.D. of Bedford-square is not forgotten."¹⁶² Immediately after the inquest, Turnbull attended to patients and received his fees; one correspondent noted that Turnbull made use of physicians Marshall Hall (1790-1857) and Neil Arnott (1788-1874) for consultation, questioning the ethics and etiquette in such manners.¹⁶³ These comments received minor rumblings in the correspondence section. It was Turnbull's "height of puffery," however, in his return to advertising "quack paragraphs," that infuriated the periodical's readers:

Dr. Turnbull has been paying for the insertion of a quack paragraph in the papers, in which he is described as a miracle-worker of no means order; giving sight to the blind, hearing to the deaf, and so on. Has he forgotten the coroner's inquest held on one of his victims of the new treatment? Does he suppose he is again to thrust himself before the world with impunity? We will give a few notes of his history for public benefit."¹⁶⁴

The insertion included four to five columns in an edition of the *Sun*, a "gross quacking puff, part of it being in *the shape of a leading article!!*"¹⁶⁵ "Gentle reader," the writer asked, "can the height of puffery further go? How much does the proprietor of the 'Sun' charge for this prostitution of his columns? How much does Mr. Murdo Young receive for trumpeting quackery?" William Wilde also noted Turnbull's shift in practice: "After this [the death of] Hall it seems the Doctor changed his hand, and finding that it was rather a "dangerous" experiment to "blow up" his patients, he determined to *suck* them as much as possible," by using an air-pump with a small glass tube

¹⁶² *The Medical Times* vol.1, no.10 (Saturday November 30, 1839), 76.

¹⁶³ *The Medical Times* vol., no.7 (Saturday November 7, 1839), 52.

¹⁶⁴ *The Medical Times* vol.1, no.18 (Saturday January 25, 1840), 170.

¹⁶⁵ *The Medical Times* vol.1, no.20 (Saturday February 8, 1840), 194.

inserted into the mouth of the patient.¹⁶⁶ A sheer move by a quack, Wilde declared, who had no business practicing aural surgery and was just grasping at straws.

These periodicals also mention aural surgery when discussing quackery. To remedy this gross error, commentators insisted “the suppression of quackery rests with the press. Remove their source of publicity, and the empirics must die a natural death, despite their never-failing specifics.”¹⁶⁷ Enough was enough with the puff pieces, the insertions of quack advertisements, the compromising of medical integrity for profit. The Turnbull case again was mentioned in its role in medical reform:

We perceived the puff in the ‘Morning Adviser’ of the Turnbull Quackery, which the more surprises us, inasmuch as the paper has stood manfully forward in the cause of Medical Reform. Indeed, with the exception of the ‘Morning Advertiser,’ the public papers have scarcely noticed the important question of Medical Reform. The press has done everything for quackery by puffing any quack poisoner who could pay the price, and the same press has done much towards suppressing the efforts of professional talents to reform our medical code.¹⁶⁸

As Mark Weatherall notes, a favorable tactic for a practitioner to establish credibility in the eyes of the public was to lump all the so-called quacks together, thus making it difficult to defend one without defending the other, making it increasingly difficult to separate the “legitimate aurist” from the “quack aurist.”¹⁶⁹ Toynbee was so viciously against the “advertising surgeon-aurist” that he considered only George Plitcher and Thomas Wharton-Jones as producing work worthy enough

¹⁶⁶ Wilde, *Practical Observations*, 47.

¹⁶⁷ *The Medical Times* vol.1, no.22 (Saturday February 22, 1840), 218.

¹⁶⁸ *The Medical Times* vol.1, no.36 (Saturday May 30, 1840), 114.

¹⁶⁹ Mark W. Weatherall, “Making Medicine Scientific: Empiricism, Rationality, and Quackery in Mid-Victorian Britain,” *Social History of Medicine* 9.2 (1996): 175-194; 185.

to contribute to aural surgery.¹⁷⁰ William Wilde was dismissive of the “far-famed” Curtis and his “followers” who copied the “plan” laid down by Curtis of simply recomposing the works of his previous publications instead of adding new and original ideas—adding the “nostrum-monger” Joseph Williams, John Stevenson, and William Wright to that list, as well as “Webster, Thornton, and Fletcher, works similar in substance and composition, although, perhaps, not so flagrant in plagiarism.”¹⁷¹

Aurists who were under siege often publicly portrayed themselves as altruists, drawing attention to their benevolence and sympathy for the plight of the deaf that consumed their desire to succeed in their career.¹⁷² John Stevenson, for instance, was the child of a celebrated surgeon who he trained under for three years before being sent to St. Thomas’ and Guy’s Hospitals for further studies, where he “performed many of the most important surgical operations.”¹⁷³ Due to health reasons brought on by overworking, he decided to concentrate on two branches of medicine and surgery, choosing the diseases of the eye and ear, which led him to study under Saunders at the London Infirmary. William Maule (c.1775-1851), of Ashfield, Midhurst, was a resident of Savile-Row and was established as an “aurist-operator,” employed to the Royal Family during the same time as Curtis. Wright scorned these aurists for advertising only themselves and their practice without regards to the speciality, noting that “it is *measure*, not *men*,” that determines the values of the principle of science.¹⁷⁴ The aurist Hugh Neill of Liverpool concurred:

¹⁷⁰ *The Lancet* (9 November 1839), 239.

¹⁷¹ William R. Wilde, *Practical Observations on Aural Surgery and the nature and treatment of diseases of the ear* (London: John Churchill, 1853), 23-24.

¹⁷² Cody, ““No Cure, No Money,”” 103.

¹⁷³ *A New Biographical Dictionary of 3000 Contemporary Public Characters, British and Foreign of All Ranks and Professions* 2nd edn. Vol 3, Part 2 (London: Geo. B. Whittaker, 1825), 452.

¹⁷⁴ William Wright, *On the Treatment of Deafness* (London: John Wesley, 1853), vi.

"Professional ignorance or neglect, disposed if it did not drive the afflicted to deliver themselves up to the hands of quacks."¹⁷⁵

The issue of quackery in aural surgery carried much weight during 1839. At a meeting of the Westminster Medical Society on 26 October 1839, Toynbee read a paper outlining the "very degraded state of aural surgery; the practice of which had, through its neglect by legitimate practitioners, become synonymous with charlatans."¹⁷⁶ His paper, however, also suggested the benefits of aural surgery, but only if another Turnbull scenario was avoided. As Dr. Crowne, President of the Society remarked on Toynbee's paper, "The injuries inflicted upon the community by the advertising "surgeon aurists" were incalculable, and to those who had no opportunities of seeing them, almost incredible."¹⁷⁷

The problem with Eustachian tube catheterization is that by being perceived as a fashionable or "catch-all" cure, it threatened to undermine the value of aural surgery as a specialty, for there was no regulation over who was qualified to perform such a dangerous procedure. Perhaps, Wright asserted, only legislative interference should manage the profession, through "an

¹⁷⁵ Hugh Neill, *A Report Upon Deafness when resulting from diseases of the Eustachian passages* (Liverpool: Joshua Walmsley, Church St., 1840). Iii.

¹⁷⁶ *The Lancet* (9 November 1839), 239.

¹⁷⁷ *The Lancet* (9 November 1839), 239. Crowne quoted d from Toynbee about the experiences of a patient, possibly at Curtis' Royal Dispensary: "A patient which chronic inflammation of the membrane tympani, with purulent discharge, now under my care, was sent by a medical man to an institution founded for curing diseases of the ear. The history of the case of that patient, as detailed in my note-book, is a good illustration of the use hitherto made of the institution. The patient says, that having obtained a letter, she applied to the institution. She waited in a small room opening into the street, until it was full, and the people assembling formed a crowd on the pavement around the street door; that after they had waited there a certain time, half a dozen were let into another room, where they stood in a row, the question asked them being, "Have any of you been here before? " Those who had not, gave their names and address, which were entered upon the case book. Their symptoms were not heard, their ears were not examined, but, nevertheless, drops or powders were given. It fell to the lot of my patient to receive some most acrid drops, which were directed to be applied to the dear; they were so applied, and produced excruciating pain. This poor creature endured, and repeated the application, hoping thus to be effectually cured. The result was, as the drawings in my note-book testify, an almost entire destruction of the membrane tympani on each side."

investigation into the qualifications and capabilities of persons practicing *as aurists*." This could likely avoid any further disputes over a practitioner's qualifications for practice, as well as protect the public and free "this useful branch of surgery...from the opprobrium quackery has brought upon it."¹⁷⁸ For clearly, there will always be some "of these empyrics advertising in London, and its neighbourhood, as well as in all parts of the country, who either profess to cure deafness in a wonderfully quick manner, or sell some nostrum for the purpose."¹⁷⁹ Henry Savage concurred, emphasizing that such legislation overseeing the use of catheters and air-press "will effectually put down a system which can exist only at the expense of public health."¹⁸⁰

CONCLUSIONS

Alexander Turnbull left London shortly after the inquest. Reports on his activities surfaced in Edinburgh and Glasgow in the early 1840s, being featured in *Chambers's Edinburgh Journal*. In Bristol, an article warned the public about Turnbull's dangerous remedies and that fees were refunded for ineffective cures.¹⁸¹ Apparently by the 1850s, Turnbull left the country, voyaging across the Atlantic with his daughters and touring the United States. He eventually settled in Charleston and opened up a practice by advertising his effective and miraculous remedies. Numerous newspaper articles from these cities reveal Turnbull continued to advertise "miraculous cures" for restoring hearing as well as sight; but it appears Turnbull could never

¹⁷⁸ William Wright, *The Present State of Aural Surgery* (London: T. Hurst, 1834), 66.

¹⁷⁹ William Wright, *On the Varieties of Deafness, and Diseases of the Ear, with proposed methods of relieving them* (London: Hurst, Chance, and Co., 1829), 287.

¹⁸⁰ Henry Savage, "A Recent Case of Sudden Death, With Remarks," *London Medical Gazette* 24 (1839): 616-620; 620.

¹⁸¹ "A Warning to the Blind. Dr. Turnbull.—Prussic Acid. Refunding of Fees." *The Lancet* 39 (7 January 1842): 540-543,

escape scandals. A pamphlet was published and circulated in Charleston in 1854, titled *The Pretensions of Dr. Alexander Turnbull, to Cure Deaf-Dumbness and All Diseases of the Eye and Ear, by simple and painless processes*. The author did not reveal him or herself, but makes it clear that the short publication was to answer some of the numerous inquiries that were made concerning the “scientific attainments” of Turnbull and to correct the “erroneous impressions” which were made through public prints of Turnbull’s unblushing effrontery and his “pretended cures.”¹⁸² Directed primarily to parents of deaf-mutes, who hoped their children “would be resorted to their healthful use of their dormant faculties,” the publication also attempted to debunk the “miracles” that were credited to the aurist.

The pamphlet reveals the extent to which Turnbull used newspapers and other periodicals to advertise his skills and services—the same medium that would attempt to demystify his allure and his success. As the writer explains, “[b]ut it is only to the public, and not to the profession, that Dr. Turnbull makes these pretensions—implying that *he* can do what no other *mere* man can do. If the power of giving sight to the blind, hearing to the deaf, and speech to the dumb, was imparted to only ONE, who was more than man, then such power was miraculous, and cannot be arrogated by any erring mortal.”

Turnbull’s role in deaths of his patients following Eustachian tube catheterization is important for revealing how aurists sought to identify themselves under an ideological rubric of “brethren,” partly to defend their own practices, and partly to defend their specialty against public doubts.¹⁸³ Part of aurists’ responses following the Turnbull inquest can be situated in how they

¹⁸² *The Pretensions of Dr. Turnbull to Cure Deaf-Dumbness, and All Diseases of the Eye and Ear by “Simple and Painless Processes”* (Charleston: Walker and Jones, 1854).

¹⁸³ Burney, *Bodies of Evidence*. Michael Brown, “Medicine, Reform, and the ‘End’ of Charity in Early Nineteenth-Century England,” *English Historical Review*, 124 (2009): 1-36.

aimed to distance themselves from any ambivalence surrounding their field and mark themselves as specialists. These aurists viewed the Turnbull inquest as evidence for demonstrating the importance of a clearly defined specialty that unified and oriented itself towards a collective desire to expand understanding of diseases of the ear, provided effective therapeutic measures, and constructed a body of knowledge with pedagogical ends. In so doing, it was possible to not only secure the surgical authority of aurists, but also ward off quacks who were a danger to the field and patients alike.

By situating the Hall inquest and the general responses of aurists on Eustachian tube catheterization within the wider social and cultural trends towards medical reform during the late 1830s-early 1840s, this Chapter suggests that the case provided aurists with a powerful impetus for overhauling their field. The attacks against aural surgery from both internal and external fronts continued to undermine aurists' quest for surgical authority and provided a sense of immediate urgency for establishing surgical consensus on a particular procedure. As Yearley declared in 1841, aural surgery's reputation was so fragile, that "with one or two exceptions, "aurist," in England, has hitherto been but another term for "quack."¹⁸⁴ The greatest misfortune with this assumption, he continued, was the public's confirmation of deafness as incurable, and the lack of trust in specialized care offered by the few popular and skilled aurists.

¹⁸⁴ James Yearsley, *Contributions to Aural Surgery* (London: Published by Nisbet & Co., 1841), 3.

4. SPECIALIZING A PROFESSION CURTIS' QUEST FOR SURGICAL AUTHORITY¹

"What amount of good has ever come from mere aurists, or oculists, or dentists, to compensate for the thousands of eyes, and ears, and teeth, that they have destroyed by their ignorant quackery? The whole science has in each of these cases been established by the labours of surgeons and physicians, who have cultivated the one or the other as their favorite branch on the main trunk of medical knowledge; but in no instance has the branch flourished when stole off from the tree and planted by itself."²

INTRODUCTION

The decade following the Alexander Turnbull inquests saw a drastic transformation in aural surgery. The inquests reinvigorated discussions on the importance of having qualified practitioners in the field, particularly university-educated persons who were properly trained and accredited to perform complex surgical procedures. By the 1840s, a growing discontent among aurists' regarding the state of their field led them to articulate a new set of identities in order to differentiate themselves from "quack aurists" such as Turnbull. Concerned that the publicity following the inquests would invite an increase in "quack aurists" peddling their wares, some aurists called for a discussion on how aural surgery could barricade itself against charlatanry. On 19 December 1839, for instance, Hugh Neill, surgeon to the Institution for Curing Diseases of the

¹ Parts of this chapter are reprinted, with permission, from Jaipreet Virdi-Dhesi, "Curtis's Cephaloscope: Deafness and the Making of Surgical Authority in London, 1816-1845," *Bulletin of the History of Medicine* 87.3 (2013): 349-379.

² *London Medical Gazette* 28 (August 27, 1841), 871.

Ear and to the Ophthalmic Infirmary, read a paper before the Liverpool Medical Association.³ Commenting on whether aural surgery was a practice or an art, Neill remarked: "With perhaps but two exceptions, the profession is without a system of surgery...I assert that there is no system of Ear Surgery worthy of the age, or of the wide name of having emanated from any city, state, or province, of European or Transatlantic Reputation. In England there is none. I speak to the facts."⁴ For aural surgery to be credited as a specialized practice, Neill asserted that aurists needed to create a consensus regarding practice and treatment. They needed to identify themselves as specialists and ensure they approached diagnosis and treatment of aural diseases in similar fashions. This practice of boundary maintenance relied upon the rhetoric of "medical science" and a demand for aurists to unify themselves as a surgical speciality in order to reconfigure epistemological claims for aural surgery and acknowledge a more respectable identity.⁵

John Harrison Curtis was particularly invested in creating a more vocationally specific identity for aural surgery, one which expressed the rhetoric of "medical science." The rhetoric, as Curtis explained, revolved around his intention

[t]o strive for the completion of my original plan to bring the whole circle of diseases of the Ear under subjection to medical science...[O]nly by continued and exclusive practice and observation, together with an accurate knowledge of the human structure and its functions,

³ Hugh Neill founded the Institution in 1839 as a public charity. In 1841, following a public meeting in Liverpool, Neill's recommendations for the Institution and the Infirmary to merge was adopted; this became the Liverpool Eye and Ear Infirmary on Harford Street.

⁴ Hugh Neill, *A Report Upon Deafness when resulting from diseases of the Eustachian passages; with the modern methods of cure* (Liverpool; Joshua Walmsley, Church St., 1840).

⁵ Michael Brown, *Performing Medicine: Medical Culture and Identity in Provincial England, c.1760-1850* (Manchester: Manchester University Press, 2011), 116; John Harley Warner, "The History of Science and the Sciences of Medicine," *Osiris* 10 (1995): 164-193.

as revealed by the sciences of anatomy and physiology, that we can hope to obtain a thorough acquaintance with any special branch of medical or surgical study.⁶

The original plan, of course, was to advocate a specialized focus for aural surgery in order to defeat the pressures of the “popular prejudice.” Curtis also specified what he considered to be under the realm of “medical science:” proper diagnosis, skilled knowledge, and an understanding of anatomy and physiology. By applying these elements, he argued that not only has aural pathology “taken its proper place in the studies of the medical man,” but also “thus wrestled it from the hands of the empiric.”⁷ The rhetoric of “medical science” provided Curtis an advantage for asserting the integrity of his work, as well as his claims for specialization.

As historians have argued, the nineteenth-century appeals to the rhetoric of “science” were often used as a tool for a practitioner’s quest for specialized and professional identity. Mark Weatherall points out that making medicine “scientific” was perceived as a solution to the problem of social order among medical practitioners. “Medical science” could affirm and maintain certain sets of social and professional relations within the boundaries of specialized knowledge—but there were many different types of “medical science” before the 1860s.⁸ What “scientific” meant among aurists, however, is not always clear.⁹ In some cases, it was used to advocate a routine of careful and honest diagnosis and therapeutic care without blatant advertising, reflecting an ideal of gentlemanly conduct, as William Wright stated: “let honor and integrity rule the conduct, and

⁶ John Harrison Curtis, *Advice to the Deaf: The Present State of Aural Surgery*, 5th ed. (London: Whitaker and Co., 1845), ix.

⁷ John Harrison Curtis, *On the Cephaloscope and its uses in the discrimination of the normal and abnormal sounds in the organ of hearing with remarks on the diseases in which it is applicable* (London: John Churchill, 1842), 3.

⁸ Mark W. Weatherall, “Making Medicine Scientific: Empiricism, Rationality, and Quackery in Mid-Victorian Britain,” *Social History of Medicine*, 9.2 (1996): 175-194; 177-8.

⁹ Delia Gavrus, “Men of Dreams and Men of Action: Neurologists, Neurosurgeons, and the Performance of Professional Identity, 1920-1950,” *Bulletin of the History of Medicine* 85.1 (2011): 57-92; 61.

reasonable scientific treatment be adopted.”¹⁰ In other cases, “scientific” referred to the practice of reasonable medicine based on theoretical principles, supplemented with explanations of the physiology and anatomy of the ear—adding new contributions to the field through clinical medicine and surgical experimentation.¹¹

This Chapter narrates how Curtis attempted to apply the rhetoric of “medical science” in order to forge a specialized identity for aurists. Stressing that the “popular prejudice may be considered as one of the causes that impede the progress of medicine, since it prevents patients from applying to a practitioner in the early stage of a malady,” Curtis urged his fellow aurists to acknowledge the importance of distinguishing between curable and incurable cases of deafness.¹² Doing so would prevent “quack aurists” who were uninterested in diagnosis or the indications of treatment from assuming jurisdiction over the management of deafness. These “quack aurists,” Curtis declared, only cared for providing a catch-all cure in order to bolster their reputation. Qualified aurists that were trained to distinguish between varieties of deafness would not only enhance understandings of aural diseases, but they would also be better trained to apply adequate, safe, and effective treatments—and hopefully, create a professional consensus in order to solidify aural surgery’s reputation as a legitimate surgical speciality.

Curtis’ strategy for professional consensus was a diagnostic instrument, which he promised would strengthen aural surgery’s surgical authority and its need to accomplish a specialized

¹⁰ William Wright, *Plain Advice for all classes of Deaf Persons, the Deaf and Dumb, and those having Diseases of the Ear* (London: Callow & Wilson, 1826). 177.

¹¹ Michael Worboys, “Practice and the Science of Medicine in the Nineteenth Century,” *Isis* 102 (2011): 109-115; W.F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994). John Harley Warner, “Ideals of Science and their Discontents in Late Nineteenth-Century America,” *Isis* 82 (Sept. 1991): 458-478.

¹² John Harrison Curtis, *A Treatise on the Physiology and Pathology of Diseases of the Ear* 5th Edition (London: Longman, Rees, Orme, Brown, and Greene, 1831), 19.

identity by providing approaches for regulating aural knowledge. Introduced in 1841, the cephaloscope was created in order to enable aurists “to diagnosticate between many diseases hitherto confounded together, or little understood, by the pathologist and practitioner.”¹³ The cephaloscope was a long wooden tube with an ivory ear-piece at one end and a large bowl at the other end, large enough to envelope a patient’s ear. Auscultation through the ivory ear-piece would assist the aurist in detecting whether any blockages or structural defects were present in the ear passages. The instrument offered for a sage and painless examination and was advertised for its diagnostic efficiency and aiding the aurist in determining whether a case of deafness was curable. For instance, *The Literacy Gazette* reviewed: “[W]e hope that, since it has been so showily announced in the profession and to the public, [the cephaloscope] may be a real *bijou*, by the advantages that may be required from it in the treatment for a very refractory class of complaints.”¹⁴

Historians have evaluated how technologies were used as crystallization points for successful specialities, even in situations where practitioners were reluctant to adopt new technologies and skills.¹⁵ Placing instruments in a pivotal role in a practitioner’s approach to treatment, Audrey B. Davis has outlined how diagnostic instruments not only presented additional information about symptoms and disease, but also *aided* decision-making, rather than overpowering it.¹⁶ Likewise, Malcolm Nicolson makes a crucial distinction between academic and practical knowledge, pointing out that the successful adoption of a diagnostic instrument, such as

¹³ John Harrison Curtis, *On the Cephaloscope and its uses in the discrimination of the normal and abnormal sounds in the organ of hearing with remarks on the diseases in which it is applicable* (London: John Churchill, 1842).

¹⁴ *The Literacy Gazette and Journal of the Belles Lettres, Arts, Sciences &c.*, no.1315 (April 2, 1842), 231.

¹⁵ Stanley J. Reiser, *Medicine and the Reign of Technology* (Cambridge: Cambridge University Press, 1981).

¹⁶ Audrey B. Davis, *Medicine and its Technology; An Introduction to the History of Medical Instrumentation* (London: Greenwood Press, 1981).

the stethoscope, also relied on the experimental, learning process of skilled auscultation.¹⁷ Technologies could also enable a medical practitioner to stand apart amongst the competition, though new technologies always ran the risk of being accused of stooping to quackery.¹⁸ Evaluating the meaning and significance of instruments as vehicles of professional authority, this Chapter questions whether aurists were merely presenting a caricature of the social role of instrumentation—that is, whether or not they viewed instruments merely as marketing strategies or as providing legitimization of one's surgical skills. Some aurists saw instruments as an end in themselves, as practical means without any enthusiasm for specialization. Others, like Curtis with his cephaloscope, viewed diagnostic instruments as hallmarks of their authority, and as providing an impetus for aurists to unify their understanding of both diagnosis and treatment of ear diseases.¹⁹

The question of whether an instrument has the potency to transform a discipline or practice has also been raised by historians who have discussed the epistemic value of objects and their meanings for verifying embodied knowledge.²⁰ An instrument like the cephaloscope could serve as a baton for such a transition, for it contextualizes arguments over specialism and quackery in aural surgery by providing a specific skill to identify with the profession: mediate auscultation. As Penelope Gouk and Ingrid Sykes' survey of eighteenth-century auditory

¹⁷ Malcolm Nicolson, "The Introduction of Percussion and Stethoscopy to early Nineteenth-Century Edinburgh," in W.F. Bynum and Roy Porter, *Medicine and the Five Senses* (Cambridge: University of Cambridge Press, 1993), 134-153.

¹⁸ Roy Porter, *Quacks: Fakers and Charlatans in English Medicine* (London: Stroud Tempus, 2001), 17.

¹⁹ Tom Rice, "'The hallmark of a doctor': The Stethoscope and the Making of Medical Identity," *Journal of Material Culture* 15.3 (2010): 287-301.

²⁰ Robert Bud *et al* (eds.), *Manifesting Medicine: Bodies and Machines* (Amsterdam: Harwood Academic Publishers, 1999); David Baird, *Thing Knowledge: A Philosophy of Scientific Instruments* (Berkeley: University of California Press, 2004); Lorraine Daston, *Things that Talk: Object Lessons from Art and Science* (MIT Press, 2004); Sam Alberti, "Objects and the Museum," *Isis* 96 (2005): 559-571.

perception suggests, “hearing science” developed alongside a particular cultural discourse that signified the act of listening as fundamental for constructing medical knowledge, what John Picker refers as an “auscultative age.”²¹ Similarly, as an “artifact of technique,” the cephaloscope allowed the aurist to become a “virtuoso listener,” as Jonathan Sterne puts it, one who heard the ear in a way previously inaccessible, thus enhancing his diagnostic prowess and coming closer to defeating the “popular prejudice.”²² By providing an analysis of how instruments were used to bolster the aurist’s authority as a specialist, this Chapter moves beyond a mere sketch of a nascent aurist culture: with a growing dependency on technology and its desperate need for a unified specialty, in the making of its specialty, aural surgery provides more complex relationships between practitioners, professional associations, patients, institutions, makers, and objects.

Situating the cephaloscope in a broader historical analysis provides us with a nexus for evaluating the meaning and formation of a specialist identity. George Weisz’s work has outlined how specialization in nineteenth-century Britain gained its initial justification as a “form of knowledge production and dissemination rather than as a type of skill or form of practice,” although in medicine there was often no distinction made between the two.²³ Slowly developed in

²¹ Penelope Gouk and Ingrid Sykes, “Hearing Science in Mid-Eighteenth Century Britain and France,” *Journal of the History of Medicine and Allied Sciences* 66.4 (October 2011): 507-545; John M. Picker, *Victorian Soundscapes* (Oxford: Oxford University Press, 2003), 7.

²² Jonathan Sterne, “Mediate Auscultation, the Stethoscope, and the “Autopsy of the Living”: Medicine’s Acoustic Culture,” *Journal of Medical Humanities* 22.2 (2001): 115-136.

²³ George Weisz, *Divide and Conquer: A Comparative History of Medical Specialization* (Oxford: Oxford University Press, 2006), xxi. Weisz’s thesis revises the long-standing argument outlined by George Rosen that specialization in medicine was rather the consequence of a new conception of disease, specifically, the influence of localist organic thinking based on pathological anatomy and new technologies that emerged out of the Paris clinical schools. Rosen’s emphasis on organic localism ties together with Erwin Ackermann’s argument that as the pathological conception of disease replaced the traditional humoral theory of medicine, so it allowed for divisions to be made in the body and in medical skills. Rosen’s sociological study, however, recognizes specialization as an extension of social divisions of labour—specializations are to be viewed as *modes of activity*, in which such activities result from the interaction of

the first half of the nineteenth century as a “relatively low-status career option,” specialization, Weisz argues, was widely perceived in Britain as a disruptive force to the overall consensus of the medical occupational group.²⁴ The tripartite hierarchy of physicians, barber-surgeons, and apothecaries constructed a “unique degree of hostility” against proponents of medical specialization.²⁵ This meant that specialization was largely cultivated outside of the medical elite, framing a conspicuously entrepreneurial cast financed by philanthropists and focused on specific disease.²⁶ This also meant, as Margaret Pelling points out, specialization was often regarded as an aspect of quackery.²⁷ Physicians were expected to adhere to a holistic understanding of the body and those who specialized in particular diseases or particular aspects of the body were considered to be unqualified for practice, or perceived as having limited capacities, as William Bynum has argued.²⁸

Combined with the problematic and fragmented system of licensing and degree-granting, Weisz explains that the “main thrust of efforts by would-be reformers of British medicine was to bring unity, simplification, order, and greater equality to this complex, if not chaotic, professional

various factors: scientific, technological, demographic, economic, social, or psychological. Other sociologists during the 1960s also emphasized that specialization was largely the product of late-nineteenth and early twentieth-century science and technology. Post-1970s scholarship built upon the sociology of professions theory, which views specialties either as a barrier to professional unity, or as mini-professions competing with each other. George Rosen, *The Specialization of Medicine with Particular Reference to Ophthalmology* (New York: Froben Press, 1944); Rosemary Stevens, *Medical Practice in Modern England: The Impact of Specialization and State Medicine* (New Haven & London: Yale University Press, 1966).

²⁴ Weisz, *Divide and Conquer*, xxii.

²⁵ On the tripartite system, see: Ivan Waddington, *The Medical Profession in the Industrial Revolution* (Chicago: University of Chicago Press, 1989) and Harold Cook, *The Decline of the Old Medical Regime in Stuart London* (Ithaca & London: Cornell University Press, 1986),

²⁶ Weisz, *Divide and Conquer*, 28.

²⁷ Margaret Pelling, *The Common Lot: Sickness, Medical Occupation and the Urban Poor in Early Modern England* (London & New York: Longman, 1998), 241.

²⁸William Bynum, “Treating the Wages of Sin: Venereal Disease and Specialism in Eighteenth-Century Britain,” in W.F. Bynum and Roy Porter (eds), *Medical Fringe and Medical Orthodoxy 1750-1850* (London: Croom Helm, 1987), 6.

context.”²⁹ Making room for “medical science” thus became the chief goals of these reformers.³⁰ These themes are present in aurists’ attempt for claiming a specialist identity: specialization could defend aurists from “quack aurists” who threatened their livelihood and dismiss claims of the “popular prejudice.” Specialization could, as Curtis asserted, “render practitioners equally conversant in the treatment of the diseases of this intricate organ, as in other parts of the body,” and provide a degree of legitimacy to the work of aurists. Moreover, specialization would make way for new observations in regards to disease symptoms and physiology, encourage aurists to mull over newer treatment procedures and technologies, and challenge established remedies that failed to produce any beneficial effect. To aurists, specialization could, as Rosemary Stevens outlines, make for a more efficient medical practice. In so doing, specialization could increase social desirability for a particular kind of medical practitioner, for the specialist held a kind of monopoly in his skill that was scarcely practiced by another.³¹ This point is echoed by Lindsay Granshaw, who has shown that medical practitioners identifying themselves as specialists not

²⁹ George Weisz, “The Emergence of Medical Specialization in the Nineteenth-Century,” *Bulletin of the History of Medicine* 77.3 (Fall 2003): 536-574; 562. According to Weisz, there were four main factors influencing the acceptance of specialties in Britain: (1) the fragmentation of licensing due to the division of the three main occupational groups—physicians, barber-surgeons, and apothecaries—which formed a threatening view of specialization that could lead to greater professional division and conflict.²⁹ (2) The lack of a single hospital or state educational system to build administrative rationality, including the absence of state intervention. Specialization thus had to build outside the system, which easily dismissed specialists as “opportunistic interlopers, if not charlatans and quacks.”²⁹ (3) The main perception of research as a “gentlemanly pursuit” based on personal and cultural attributes, rather than on methodological and empirical research.²⁹ And finally, (4) the slow and hesitant professionalization of scientific research more generally, since it had only a minor role in universities and societies.²⁹ However, factors did not prevent the emergence of specialization in Britain, but rather, it contributed to its shaping as a distinctive form from the case in France. See: Weisz, *Divide and Conquer*, 26-29.

³⁰ Weisz, “The Emergence of Medical Specialization,” 564.

³¹ Rosemary Stevens, *Medical Practice in Modern England: The Impact of Specialization and State Medicine* (New Haven & London: Yale University Press, 1966), 5.

only defined new problems for their field and proposed new solutions, but also emphasized the danger that “would ensure to patient and practitioner if specialist help was not enlisted.”³²

For Curtis, specialization was necessary to legitimatize the efforts of aurists to eradicate the “popular prejudice.” He argued practitioners who dominated the market for aural care also placed patients at risk with dangerous surgical procedures that were advertised as safe and effective. Here, Curtis’ claims provide insight into evaluating the place of aural surgery and treatments for deafness within the market for health care. Historians have used the “medical marketplace” model as a shorthand critique of older historiographies favouring the tripartite hierarchy of physicians, barber-surgeons, and apothecaries who dominated health care. While the term is indeed in need of a revision—some historians preferring “a market for health care” or “a market for medicine”—it is clear that medical specialization can be placed within the context of a larger history of consuming and consumption.³³ The marketplace model also highlights the pecuniary struggles among practitioners aiming to specialize: struggle among occupations as knowledge and technology became resources to justify status and dominance;³⁴ competition for placement in voluntary hospitals³⁵; and the attractive economic niche for them to focus on one part of the body and treat a specific subset of patients.³⁶ The relationships between economic structures and

³² Lindsay Granshaw, “Knowledge of Bodies or Bodies of Knowledge?

³³ Neil McKendrick, John Brewer and J.H. Plumb (eds.), *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (Bloomington: Indiana University Press, 1982); Porter, *Consumption and the World of Goods*.

³⁴ Glenn Gritzer and Arnold Aruke, *The Making of Rehabilitation: A Political Economy of Medical Specialization 1890-1980* (Berkeley: University of California Press, 1985).

³⁵ Stevens, *Medical Practice in Modern England*; Lindsay Granshaw, *St. Mark’s Hospital London: A Social History of a Specialist Hospital* (London: Hollen St. Press, 1985).

³⁶ John V. Pickstone, “Bones in Lancashire: Towards long-term contextual analysis of medical technology,” in Carsten Timmerman and Julie Anderson (Ed.), *Devices and Designs: Medical Technologies in Historical Perspective* (New York: Palgrave Macmillian, 2006).

individual experience, including the consumer/patient's "fetishism of goods"³⁷ and their active role within a "buyer's market," especially provides insight on how the tendency to specialize did not place restrictions on patients, who "shuttled" among practitioners in search of relief and did not discriminate between them.³⁸

The medical marketplace model is useful, for it directs our attention equally to patients and the power of consumer choice. It also provides an analytical framework for revealing how practitioners adjusted their practices to cater to patient needs. In Curtis' view, the presence of "quack aurists" in the market for aural care placed patients at risk with dangerous surgical procedures they advertised as safe and effective. By placing "quack" as a term for historical analysis, attacks and accusations of quackery between aurists could be interpreted as disagreements in identity and performance, an expression of what they imagined themselves to be doing as a profession and how they fashioned themselves accordingly.³⁹ Curtis insisted a unified specialist identity for aural surgery would go a long way in modeling the aurist as a specialized practitioner and differentiate him from the "quack aurist." Moreover, a clearly defined specialist identity could transform the nascent and fragmented aural culture that was rife with individual competition and intra-occupational rivalries in order to bring "the whole circle of diseases of the Ear under subjection to medical science...together with an accurate knowledge...revealed by the sciences of anatomy and physiology."⁴⁰ Thus, Curtis declared an aurist's responsibility was not only to challenge this prejudice, but also to counteract it by forging his skills as a diagnostician to

³⁷ Porter, *Consumption and the World of Goods*.

³⁸ Pelling, *The Common Lot*, 241; Aileen Fyfe and Bernard Lightman (eds), *Science in the Marketplace: Nineteenth Century Sites and Experiences* (Chicago & London: University of Chicago Press, 2007), 3.

³⁹ Michael Brown, "Medicine, Reform, and the 'End' of Charity in Early Nineteenth Century England," *English Historical Review* 124 (Dec. 2009): 1353-1388.

⁴⁰ Curtis, *Advice to the Deaf*, ix.

improve his surgical authority, and hence, provide more effective treatments and place patients at ease.⁴¹ By requiring aurists to be trained in precise diagnosis, the cephaloscope could thus hold the potential for bolstering the status and authority of aurists at a time of severe dislocation and uncertainty in their field.

The cephaloscope held potential for unifying aurists at a time of uncertainty, reform, and intra-professional rivalries; yet it scarcely caused a stir and quickly disappeared from repute along with its inventor. Nor did it leave a prominent historical mark. Its supposed maker, Edward Einsle, who was employed at the Dispensary, apparently left no records, and there are no other sources describing the construction of the cephaloscope or even its selling and exchange.⁴² It is doubtful the instrument was even built for sale, although Curtis likely used a prototype to describe its application and benefits in various case studies from the Dispensary. What we do know of the cephaloscope, we know from its description in Curtis' publications, from trade reviews, and from commentaries in periodicals such as *The Lancet*, *The Dublin Medical Press*, *The London Medical Gazette*, and *The British and Foreign Medical Review*. A glowing review juxtaposed with an engraving of the instrument was published in *Mechanics Magazine*.⁴³ Dr. Charles Cowan also mentions the cephaloscope, remarking on its "imposing term," in *A Bedside Manner of Physical Diagnosis*, making a note to direct students to Thomas Wharton Jones' (1808-1891) article on "Ear" in the *Cyclopedie of Practical Surgery* to discern between various pathologies, showcasing the benefits of instrumentation for diagnosis.⁴⁴

⁴¹ John Harrison Curtis, *Advice to the Deaf: The Present State of Aural Surgery*, 5th ed. (London: Whitaker and Co., 1845).

⁴² Einsle is mentioned in a footnote in the sixth edition of Curtis' *Treatise* as well as in *On the Cephaloscope*.

⁴³ *The Mechanics' Magazine, Museum, Register, Journal, and Gazette* vol.35 (July 3, 1841-Dec 25, 1841), 312.

⁴⁴ Charles Cowan, *A Bedside Manner of Physical Diagnosis* 2nd Edition (London: Sherwood, Gilbert, and Piper, 1842), 84.

The cephaloscope was also Curtis' strategy for making a living by distinguishing himself as a specialist in order to distance himself from accusations of quackery. Specialization could elevate a practitioner's career (and status in society) by merging his individual identity into the collective identity of the profession.⁴⁵ This point is readily emphasized in Curtis' reputation as a skilled aurist: heralded by newspapers as the "great aurist" during the 1820s, Curtis' career fell after a series of publicized debates with other aurists over various kinds of treatments for ear diseases, to the point he was ostracized as an "empiricist" and pushed to resign his post as director of the Royal Dispensary for Diseases of the Ear (est. 1816). For Curtis, his diagnostic instrument was more than just a desperate attempt to grab onto legitimacy following circumstances that disintegrated his career; it was his way of reclaiming authority for aurists in order to create a specialized and unified focus for his occupational group. This might explain why Curtis registered the instrument with the Royal Society of London's registry in 1842, a move designed to make it accessible to other aurists.⁴⁶

⁴⁵ John Burnett's account of English chemist William Prout's (1785-1850) urinometer is a similar tale to Curtis' cephaloscope, as the urinometer was not significantly medically important to have attracted the interest of historians writing about diagnostic technologies.⁴⁵ As Burnett explains, the significance of the urinometer resides upon Prout's personal use of it as an instrument for physiological research, and even if it was little regarded or used by his profession, it at "least enabled its inventor to confirm diagnoses and follow the course of his case."⁴⁵ Both the urinometer and the cephaloscope belong to a class of instruments whose narratives are inherently tied to the economic and social changes that surround their makers. John Burnett, "William Prout and the Urinometer: Some Interpretations," in *Making Instruments Count: Essays on Historical Scientific Instruments*, eds. R.G.W. Anderson, J.A. Bennett, and W.F. Ryan (Aldershot: Variorum, 1993): 242-254

⁴⁶ *Philosophical Transactions of the Royal Society of London* 132 (1842), 9.

THE FALL OF THE “GREAT AURIST:” CURTIS, CERUMEN AND CREOSOTE

Chapter Three discussed how rumours and accusations questioned the credibility and surgical authority of numerous aurists. Even Curtis did not go unscathed. Despite his national reputation as the “great aurist”—or perhaps on account of it—Curtis’ credibility was continuously attacked by rumors and accusations of incompetence. William Wright noted Curtis’ name was not in the members list released by the College of Surgeons, and wondered whether he even received his “qualifications as *surgeon* from the College, as he claims to have done ? and in what year did his name appear in *any* list sent out by the College? and, if he did, when he last so presented himself?”⁴⁷ Reviews of the *Treatise* also criticized Curtis for failing to contribute anything new and fundamental to the physiology, diseases, or anatomy of the ear, and for failing to improve on treatment techniques and cures. Save for syringing out cerumen, Curtis generally avoided surgical remedies, arguing that without any apparent and observable defect in the mechanism of the internal ear, it was difficult to ascertain what the case was. His fondness for syringing was caricatured in the *Medical Adviser*: “He syringes their ears every time they go to him with a disguised fluid, never superior, if equal, to soap suds; or he drops a few drops into the ear, and bows his patient out—for this he gets his guinea *every time*. Some go *daily* to Curtis, when their own servant acting upon an *honest prescription* could do as well.”⁴⁸ Implying that Curtis was participating in dishonest practices could undermine his credibility, but as a contemporary noted, this did not deter his patients, as “crowds of poor people, and rich ones too, flocked to the

⁴⁷ William Wright, *The Present State of Aural Surgery* (London: T. Hurst, 1834), 77.

⁴⁸ *Medical Adviser and Guide to Health and Long Life* vol.5 (6 Nov. 1824), 325.

Dispensary...for advice and relief."⁴⁹ Curtis, however, was unfazed by such criticisms, expressing that "a great hinderance [*sic*] to the progress of medical science is the jealously and rivalry of some of its members, which prevents many men of talents from entering the profession."⁵⁰ It is likely Curtis' patients were more concerned with the confidence the "great aurist" exhibited with his reputation and his effective remedies, rather than medical claims and theorizing made on the basis of formal knowledge.⁵¹

The responses to accusations of incompetence were different for Curtis' peers, many of whom judged the aurist on the merits of his skills. According to J.F. Clarke, at an 1837 Meeting of the Medical Society of London, Curtis presented a paper that was severely criticized by practitioners in the audience. A search through the Medical Society record books, including attendance books, does not provide any clear reference to Curtis' delivery of a paper nor the responses that followed. If such a paper was delivered, then the only record that comes close is a May 1837 entry penned by H.P. Roberts in the attendance book, where a blank name is underlined and an accompanying statement that "he" presented his work.⁵² Most of the entries in the Attendance Logs document debates between more prominent members of the society, especially Whiting, Clutterbuck, Piltcher, and Johnson, as well as their presentation of various cases. The accompanying page to the 1 May entry lists the attendees of the meeting, including: Mr. T.E. Bryant in the chair, Drs. Clutterbuck, Whiting, Johnson, Bennet, Kingston, Clifton, Pilcher, Merzon, and

⁴⁹ J.F. Clarke, "The Career of a Specialist: John Harrison Curtis, Aurist," in *Autobiographical Recollections of the Medical Profession* (London: J&A Churchill, 1874), 358-373: 359.

⁵⁰ Curtis, *Advice to the Deaf*, 9.

⁵¹ Sofia Ling, "Physicians, Quacks and the Field of Medicine: a Case Study of Quackery in Nineteenth-Century Sweden," in *Historical Aspects of Unconventional Medicine: Approaches, Concepts, Case Studies*, eds. Robert Jutte, Motzi Eklof and Marie C. Nelson (European Association for the History of Medicine and Health Publications, 2001): 87-102; 94.

⁵² Attendance Books, Medical Society of London. Wellcome Library Archival Material SA/MSL/E/2/1-3

others. Clarke, who was apparently present at the meeting, documents Curtis's presentation, and this is the only record on hand of such a paper being delivered. At the meeting, Curtis argued cerumen (ear wax) deficiency was one of the main causes of deafness and could easily be remedied with a diluted solution of creosote mixed with oil of almonds.⁵³ Cresote became common across German-speaking regions during the 1830s in pill or liquorice forms, to treat various pathological states, and it's likely that Curtis learned about this treatment during his visit to Vienna in the 1820s.⁵⁴ The paper was apparently not well-received by members of the Medical Society. As Clarke narrated:

I sat next to Mr. Curtis on that evening; it was the only time that I saw him anxious and perplexed. Inconvenient questions were put to him on certain points, but more particularly by the late Dr. Jas Johnson, at that time one of the most prominent Fellows of the Society. Mr. Curtis attempted to answer these questions, and he did so in such a subdued tone and in such a unsatisfactory manner, that Dr. Johnson requested him to speak up.

"Are you deaf, Dr. Johnson," said Mr. Curtis, in a somewhat angry tone.

"No," said Johnson; "and if I were I should not apply to you for relief."

Curtis was effectually silenced by this satirical remark.⁵⁵

Yet, this experience did not prevent Curtis from promoting his views. Despite the overwhelming negative response from the Medical Society, Curtis published his opinions in *The Lancet* in November 1838.⁵⁶ In the piece, Curtis remarked that deafness is "very rarely incurable

⁵³ Clarke, "The Career of a Specialist," 363.

⁵⁴ Albert Murdy, "The Making of a Career: Joseph Toynbee's First Steps in Otology," *The Journal of Laryngology & Otology* 126 (2012): 2-7; 3.

⁵⁵ Clarke, "The Career of a Specialist," 363.

⁵⁶ John Harrison Curtis, "Employment of Creosote in Deafness," *The Lancet* 31.795 (November 1838): 328-330.

from the beginning, but will, in almost all cases, become so, if neglected," returning to the rhetoric of the popular prejudice to urge attention to his claim:

It unfortunately happens that a very strong prejudice is entertained by the non-professional public against having recourse to professional assistance for the cure of deafness, a complaint which is, in general, looked upon, when commencing, as trivial, and when established, as beyond the powers of art to remove. This unhappy felling is a principal cause of the great numbers of deaf persons, who are constantly met with in society, and who, to remedy a complaint, which in all probability can be cured, or at least alleviated, by proper measures, have recourse to palliative plans of treatment, and use acoustic instruments, by trusting to which they allow that time to be frittered useless away, in which, by the judicious applications of remedies, they might be cured.⁵⁷

Explaining that one of the most common causes of deafness is a deficiency of the secretion of cerumen—ear wax—which hardens in the internal ear and prevents sounds from entering the auditory canal, Curtis argued that many such cases can be easily and safely remedied by employing a mixture of creosote through syringing. This would soften the cerumen and cleanse the meatus of the ear, re-opening the orifices and restoring the glands to healthy action and hearing.

The cleansing was an imperative part of this plan. Curtis outlined his methods for making an appropriate preparation consisting of half an ounce of ox-gall, mixed with a drachm of tincture of castor oil or tincture of musk. A cotton ball was used to absorb the mixture before being applied into the ear at night, to soften the hardened cerumen. In the morning, the ear was to be syringed with warm water and an ounce of soap liniment and “a little eau de Cologne.” Depending on the degree of cerumen hardness, the solution can be substituted with oil of almonds or with another preparation of ox-gall and castor, to dissolve the cereumen, which Curtis explained “will be found

⁵⁷ Curtis, “Employment of Creosote in Deafness,” 328.

to be of great advantage in inducing the ceruminous glands to resume their healthy action.”⁵⁸ To validate his claims, Curtis provided five case studies in which various solutions of the quantity of creosote were employed; all the patients were former cases at the Royal Dispensary, and who were recommended by Curtis’ professional brethren to apply a trial of creosote, which improved their condition and hearing loss within six weeks.

Curtis’ article infuriated Joseph Toynbee (1815-1866), an emerging surgeon appointed under Richard Owen (1804-1893) at the Hunterian Museum who made a career studying the anatomy of the ear. According to Clarke, Toynbee was present at the 1837 meeting of the Medical Society. Following the meeting, Toynbee addressed a letter to *The Lancet* with the objective of exposing Curtis for providing a faulty and oversimplified description of aural pathology, particularly Curtis’ point that “*one of the most principal, and most common causes of deafness, is a deficiency of the secretion from a want of action in the ceruminous glands* (original emphasis).”⁵⁹ Reviewing Curtis’ five cases, Toynbee argued that Curtis was grossly mistaken about the anatomy of the ear. For instance, in the case of 53-year-old George Williams, who was a patient of the Dispensary following deafness from an attack of influenza, Curtis explained “the man was so deaf that he could not hear the ticking of a watch, even when placed close to the side of his head,” which led Toynbee to respond:

In this case, the membrane and cavitas tympani being healthy, the Eustachian tube pervious, and the internal ear in a normal condition, will any one believe that the vibrations of air, arising from the ticking of a watch, when “placed close to the side of the head,” would be prevented from falling upon the membrane tympani *because the meatus was not lined*

⁵⁸ Curtis, “Employment of Creosote in Deafness,” 329.

⁵⁹ Joseph Toynbee, “Effects of Deficiency of Cerumen on the Function of Hearing,” *The Lancet* 31 no.797 (Dec. 8, 1838), 422.

with cerumen? I think that no one would believe this, and yet Mr. Curtis is the voucher for the truth it (original emphasis).⁶⁰

To Toynbee, Curtis' anatomical descriptions did not make sense with observed pathology. The membrane tympani (the ear drum), Toynbee asserted, was likely where sounds were received; and if this was the case, save for a structural defect, lack of secretion does not necessarily amount to a loss of hearing. Nor could an abundance of secretion cure deafness. He further added:

For Mr. Curtis's sake, I refrain from making any further remarks upon these cases, and will, in conclusion, add, that, in the room with me, while I write, there is a medical gentleman who had no secretion of cerumen for some years, during which time *the function of the organ was not in the least degreeed [sic] impaired*; and I have under my care at the present time a patient affected with scrofulous inflammation of the soft parieties of the meatus, the construction of which is so great as scarcely to admit of the passage of a crow-quill. When this patient first consulted me there was also a very abundant discharge from the meatus, and yet the vibrations produced by the ticking of a watch, were heard at a distance of two feet six inches from the external ear, and the patient could carry on a conversation without suspicion of there being any disease of the ear (original emphasis).⁶¹

Toynbee challenged Curtis to authenticate his cases in order to reaffirm his stance on the role of cerumen in hearing. If the cases were authenticated, Toynbee affirmed Curtis would receive due entitlement and credit of his miraculous discovery, "which the paragraphs of the daily papers attach to him," and thus, "no one will be more happy to join with the community in rendering to Mr. Curtis his dessert."

Curtis simply shrugged off the remarks of the anonymous "J.T," stating that he was "much better occupied in attending to the duties of [his] profession than in replying to the objections of

⁶⁰ Toynbee, "Effects of Deficiency of Cerumen," 422.

⁶¹ Toynbee, "Effects of Deficiency of Cerumen," 422.

an anonymous writer.”⁶² Restating his stance on cerumen deficiency, Curtis insisted that “secretion of wax as a natural function of the healthy ear,” and that the verifications of his cases were simply unnecessary, for they “would leave this question resting upon my assertion to be confirmed or neutralised by the experience of others; and as, therefore, no good result could follow from a discussion which would occupy much of my time and attention.”⁶³ Toynbee quickly produced a reply to Curtis’ remarks, once again accusing Curtis of ignorance—this time by drawing the reader’s attention to glaring errors in Curtis’ sixth edition of his *Treatise on the Physiology and Pathology of the Ear*—and once again urging Curtis to authenticate his cases.⁶⁴ These were contemptuous remarks. The letter concluded with Toynbee stating he refused to continue with the debate unless Curtis changed his conduct.

William Wright chimed in on the debate between the two aurists. Writing to *The Lancet*, Wright attempted to demonstrate to the reader a correlation between “miraculous” cures advertised by aurists and the proficiency of their charlatanism. He mentioned a Dr. Manson of Nottingham who published a work on the virtues of iodine; an “itinerant aurist” who obtained his diploma under a false name and stated his skills were authenticated by Sir Astley Cooper; Alexander Turnbull and his veratria; and

We have now Mr. Curtis advocating the use of *creosote*, and claiming the merit of introducing this article to the public notice as an efficient agent for producing the secretion of cerumen in cases where it is defective. Before I enter into the question further, probably it will be more reasonable to discuss this portion of the subject:—In what manner does this excretion of cerumen into the auditory passage contribute to the perfection of the sense of

⁶² John Harrison Curtis, “Letter from Mr. J.H. Curtis,” *The Lancet* 31 no.800 (Dec. 29, 1838), 534-535; 534.

⁶³ Curtis, “Letter from Mr. J.H. Curtis,” 534.

⁶⁴ Joseph Toynbee, “Cerosote in Deafness: Reply to Mr. Curtis,” *The Lancet* 31 no.802 (Jan. 12, 1839), 581.

hearing, or what are the uses of this substance? If Mr. Curtis cannot give a reasonable and satisfactory answer to this question I will endeavor to do so.⁶⁵

Wright also pointed out Toynbee, the anonymous "J.T." should not be ashamed to provide his name, for how else could he expect a courteous reply from Curtis or anyone else if he hid behind the guise of anonymity?

Curtis remained silent to Wright's remarks and Toynbee's response, leading Toynbee to write another letter to *The Lancet* effectively declaring that "Mr. Curtis cannot authenticate his cases."⁶⁶ As Toynbee explains, "I conclude so, because it would have been the most easy thing imaginable for Mr. C. to have given the addresses of his patients, and thus, at once, to have established the truth of his assertions, and to have dissipated all suspicions. By remaining silent, Mr. Curtis belies his principles; he does the greatest injury to "suffering humanity," and instead of "advancing science to the utmost of his ability," he stands forward a determined impediment to his progress."⁶⁷ Moreover, seemingly puzzled, Toynbee questioned Wright's decision to participate in the debate and his implications of Curtis's charlatanism. "Look at the state of the case," Toynbee reported, "Messrs. Curtis and Wright agree that deafness is produced by a deficiency of the secretion of cerumen; the former finds a remedy for this deafness, and he is immediately classed with quackery, and made the subject of attack by the latter. Ought not Mr. Wright be thankful and grateful to Mr. Curtis for this discovery?"⁶⁸ As stipulated by Toynbee, if aurists were serious about building their field as a respectable and "scientific" profession, as they declared, based on pathological and empirical studies instead of a goal for glorifying cures for incurable diseases,

⁶⁵ William Wright, "Cerosote in Deafness," *The Lancet* 31 no.802(Jan. 12, 1839), 580-581.

⁶⁶ Joseph Toynbee, "Causes of Deafness—Aural Surgery," *The Lancet* 31 806 (Feb. 1839): 733-734; 733.

⁶⁷ Toynbee, "Causes of Deafness," 733.

⁶⁸ Toynbee, "Causes of Deafness." 734.

ought not they band together for the sake of knowledge and rally for specialist authority? He also refused to state his name, explaining he had no intent to advertise himself, and concluded:

I must, in common with the medical profession, express my regret that aural surgery is in so degraded a state in this country, that hundreds of deaf persons prefer remaining as they are, to placing themselves under the hands of aurist; and let me assure Mr. Curtis, and the numerous advertising gentlemen of his fraternity, that they, by their ignorance and cupidity, have brought the present odium upon one of the most interesting and important branches of surgery; and that they, instead of "relieving suffering humanity," have produced more misery than any other class of persons now living. To prove the worthlessness of such men; to expose them as a disgrace to society, and to the profession to which they pretend to belong; and, lastly, to endeavour to render aural surgery a scientific pursuit, instead of one calculated to bring discredit upon its followers, shall always continue to be the object of your obedient servant.⁶⁹

Nothing more was said on the topic from Curtis, Wright, or Toynbee in the pages of *The Lancet*.

By 1840, wanting to remove any potential fallouts from the "ugly faces" of the Curtis-Toynbee scandal, the Board of Governors of the Royal Dispensary requested Curtis remove himself as Director, although they honored his contributions and Curtis was still allowed to advertise and maintain the role as Surgeon at the Dispensary. Such diatribes indicate that Curtis was an important public figure—the very face of the RDDE—and expected to behave accordingly with a certain degree of decorum and respectability.⁷⁰ As Michael Brown points out, when the authority of a practitioner "was called into question, so too was his public reputation," and in this case, the Governors feared Curtis' deteriorating reputation would harm the goodwill of the Dispensary.⁷¹ However, sources conflict on the exact nature of his exit. In 1847 newspapers

⁶⁹ Toynbee, "Causes of Deafness," 734.

⁷⁰ Penelope Corfield, "From Poison Peddlers to Civic Worthies," *Social History of Medicine* 22.1 (2009): 1-21; 8.

⁷¹ Brown, *Performing Medicine*, 99.

reported that at the 30th annual meeting of the RDDE, Curtis was officially thanked for his services and sent into retirement; the retirement celebrations were a "fitting close" to the "father of aural surgery."⁷² Regardless of how Curtis left the institution he founded, it is clear that the dismissal, as well as continuous criticisms against his skills as an aural practitioner had a tremendous effect on his livelihood. On October 29, 1839, the Bankruptcy Register listed John Harrison Curtis under the occupation of "bookseller," and he was summoned to the Court of Bankruptcy on 5 November and 10 December with his attorney Mr. Robson, of Clifford's Inn.⁷³ By 1841, Curtis sold the Dispensary to the aurist William Harvey (1806-1876), whose arduous task was to "talk away the ugly face of the Royal Dispensary."⁷⁴ Broke and battered, Curtis attempted to revive his fallen career and return to the good graces of his fellow aurists.

INSTRUMENTS AS SOURCES OF SURGICAL AUTHORITY

In an 1840 publication, Curtis acknowledged the ongoing debates about aurists needing to focus on proper diagnosis before proceeding with a treatment course. He then introduced to his reading public plans for a new instrument he calls the "cephaloscope," which was designed as a diagnostic instrument for "auscultation of the head."⁷⁵ In a later edition of the publication, he outlined the use of the instrument as part of the RDDE's diagnostic routine:

⁷² "ROYAL DISPENSARY FOR DISEASES OF THE EAR—Retirement of Mr. Curtis," *Essex Standard* (1847).

⁷³ *Morning Post* (30 October 1839).

⁷⁴ Clarke, "The Career of a Specialist," 370.

⁷⁵ John Harrison Curtis, *The Present State of Aural Surgery: Being the Substance of a Lecture delivered at the Royal Dispensary for Diseases of the Ear* (London: Churchill, 1840).

When a case of deaf-dumbness is brought under our notice, the first thing to be done is, to institute a most accurate and careful examination into the state of the external and internal organs of hearing, as far as it can with safety be practiced. The external auditory canal must first be carefully syringed out, so as to remove all the previously moistened cerumen, after which its condition should be explored, by means of Grüber's lamp, and speculum, and the perfect or imperfect condition and shade of the membrane of the tympanum especially noted; in like manner the normal or abnormal state of the Eustachian tube may be ascertained...The cephaloscope will also be of great service in conducting this examination. The history of the case, the physical signs, and symptoms presented by the patient, will also aid us in forming a correct conclusion as to the nature and cause of the impediment to audition.⁷⁶

A detailed history of the instrument as well as its benefits in diagnosis was outlined in Curtis' 1841 publication, *On the Cephaloscope*.

In the treatise, Curtis explained how he intended the cephaloscope to change the face of aural diagnostic tools. Dating to the first ear speculum in 1363 (credited to the surgeon Guy de Chauliac), the design of aural instruments remained consistent.⁷⁷ Used for manipulating light into the ear, aural specula remained a staple in the aurist's tool-kit with only minor modifications made throughout the years. Variations of light illuminators and convex lenses, such as Archibald Cleland's (1700-1771) "illuminator," were constructed to gain better access into the ear.⁷⁸ For the most part, these instruments depended on natural light, which left their usage inadequate on cloudy or rainy days, and at night; those aided by a candle further left examinations privy to the

⁷⁶ John Harrison Curtis, *Advice to the Deaf: The Present State of Aural Surgery*, 6th Edition (London: Whitaker & Co., 1846), 41.

⁷⁷ For an overview of the history of aural surgery instruments, see: Dennis Pappas and Lanie Kent, *Otology's Greatest Moments* (N.P., 2000); Neil Weir, *Otolaryngology: An Illustrated History* (London: Butterworths & Co., 1990); H. Feldmann, "History of the Ear Speculum," *Laryngorhinootologie* 75.5 (May 1996): 311-8 (article in German).

⁷⁸ Archibald Cleland, "A Description of a Catheter, made to remedy the inconveniences which occasioned the leaving off the high operation for the stone," *Philosophical Transactions* 41 (1739-1741): 844-847.

flickering of the flame, which in turn, undermined the validity of images viewed in the eardrum.⁷⁹ Moreover, the structure of the ear generally prevented a proper examination of the internal parts, for the auditory canal is often too narrow for sufficient light and the ear canal does not run in a straight line to the tympanic membrane—thus making the control of light extremely difficult. Curvatures and hairs in the ear further distort illuminated images, leaving the aurist to diagnose based upon his judgment.

Many nineteenth-century publications on aural surgery mention instruments in some form or other, outlining how these instruments would greatly benefit diagnosis or treatment for a particular disease. Descriptions of the Eustachian tube catheter were most common, as were descriptions of the proper use of forceps to remove blockages/objects in the ear.⁸⁰ One report even described the use of the catheter in conjunction with an air press, in order to treat more complicated blockages in the Eustachian tube.⁸¹ Some aurists described the benefits of acoustic instruments that could enhance hearing in cases where medicine or surgery was unsuccessful in treating deafness. Alphonso William Webster, for instance, filed a patent on 17 March 1836 (#7033) for a curved earpiece to be placed behind the ear that he named “otaphone.”⁸² Curtis was particularly prolific during the 1820s in stressing the importance of using instruments in aural surgery. He especially advised the use of mechanical concoctions to aid hearing in cases where the aurist had exhausted all other medical and/or surgical remedies. As such, the Royal Dispensary

⁷⁹ Dennis Pappas and Lanie Kent, *Otology's Greatest Moments* (n.p., 2000), 28.

⁸⁰ William Wright, *An Essay on the Human Ear* (London: Longman, Hurst, Reese, Orme, and Brown, 1817) and *The Present State of Aural Surgery* (London: T. Hurst, 1834); John Harrison Curtis, *A Treatise on the Physiology and Diseases of the Ear*, 6th ed. (London: Sherwood, Neely & Jones, 1836); William Harvey, *The Ear in Health and Disease* (London: Henry Renshaw, 1854).

⁸¹ Hugh Neill, *A Report upon Deafness when resulting from diseases of the Eustachian Passages,*” (Liverpool: Joshua Walmsley Church St., 1840).

⁸² A. W. Webster, “Webster’s Otaphone, a Patented Hearing Aid,” *Nineteenth-Century Disability: Cultures & Contexts*, <http://www.nineteenthcenturydisability.org/items/show/30>.

became notable for providing the poor deaf and dumb with hearing trumpets free of charge (Chapter 2). In addition, Curtis also advertised instruments he brought over from the continent, including a "keraphonite" a form of ear cornets described as "an ingenious silver acoustic instrument," supposedly "fixed on the head for the purpose of collecting sound" and donated to the Royal Society, some German and French artificial ears, a "superior" speculum from Vienna, and another type of ear cornets he called "soniferous coronal."⁸³

Not all aurists, however, agreed on the use of acoustic instruments for aiding deafness; William Wilde, for instance, remarked that ear trumpets should be carefully selected and recommended to patients, for those who benefited the most were patients with pure nervous deafness, or such as have lost the membrane tympani and some of the ossicula in early life."⁸⁴ Even Curtis, who gained fame with his conical trumpet, ceased to design or modify new acoustic instruments by the mid-1830s, expressing his concern with the improper use of instruments and the over-dependency on them. In his *Advice to the Deaf*, he explained that over-dependency of acoustic instruments would "exhaust the auditory nerve...[and] lead to irremediable deafness, which no instrument can assist."⁸⁵ The aurist's goal, Curtis insisted, shouldn't be to create a semblance of sound through mechanical apparatus, but rather to restore the loss of hearing through surgical and medical means. Hearing devices should only be prescribed as a last resort.

Even if aurists disagreed on the benefits of acoustic instruments to aid in hearing, at least they agreed on the importance of diagnostic examinations. Thomas Buchanan attempted to replace aurists' dependency on solar light for examination by recommending, then inventing an

⁸³ *The Metropolitan Magazine* 18 (1837): 28.

⁸⁴ Wilde, *Practical Observations*, 435.

⁸⁵ John Harrison Curtis, *Advice to the Deaf: The Present State of Aural Surgery* 6th Edition (London: Whittaker and Co., 1846), 47.

apparatus he called “Inspector Auris.” First outlined in *Illustrations of Acoustic Surgery* in 1825, the instrument was designed to allow light from a candle placed inside the bulb, to be manipulated through the narrow scope. While the instrument was commended by Buchanan’s medical peers for its innovative design, it still could not provide an adequate concentration of light on the eardrum, and thus was not widely used.⁸⁶ Buchanan also published an engraving of diverse acoustic instruments for examining the ear, including a probe, extractor, and forceps; these tools, however, were purposeful for treatment, rather than diagnosis. Various forms of “auriscopes” resembling Buchanan’s “Inspector Auris” were used by aurists as a substitute for the sun’s rays; these instruments were described and publicized in pamphlets and in treatises.

In the 1830s, several aurists publicized their penchant for foreign instruments whose diagnostic prowess they claimed were better than the British counterparts. Curtis advertised a variety of modified auriscopes that he maintained were superior in aiding diagnosis, particularly the Viennese Dr. Grüber’s speculum and lamp and Wilhelm Kramer’s aural forceps. He encouraged his fellow aurists to modify these instruments to their liking in order to increase the reputation of aural surgery in Britain.⁸⁷ William Wright, on the other hand, disagreed on the appeal of foreign instruments. He argued that Kramer’s funnel-shaped forceps, which were first offered to aurists in

⁸⁶ Thomas Buchanan, *Illustrations of Acoustic Surgery* (London: Longman, Hurst & Co., 1825).

⁸⁷ John Harrison Curtis, *Advice to the Deaf: The Present State of Aural Surgery*, 5th ed. (London: Whitaker and Co., 1845), 13. Part of British aurists’ fondness for foreign instruments can be rooted to John Harley Warner’s analysis of how medical science in England was in relative decline as compared with the French. Warner argued that some British medical practitioners created the rhetoric of “decline-of-science” as a strategic response to the cultural turmoil that underlined the need for reform in medicine. By publicly drawing attention to the humiliating state of affairs of English medicine—that it was lagging behind France, not just general backwardness—practitioners appeared to celebrate their national inferiority, but they actually were insisting on the urgency for “a call for repentance” that could provide professional salvation. John Harley Warner, “The Idea of Science in English Medicine: The ‘Decline-of-Science’ and the Rhetoric of Reform, 1815-45,” in Roger French and Andrew Wear (eds.), *British Medicine in an Age of Reform* (London & New York: Routledge, 1991), 136-164.

1835, were nearly identical to the same forceps he made in 1828.⁸⁸ Wright also condemned aurists for having “had imitators of this German’s instrument made, varying a little from the origin, and each claiming the merit of the invention of stupidly absurd forceps, some more clumsy, useless, and painful to the patient than others.”⁸⁹ He particularly criticized John Stevenson and William Maule’s method of dilating the auditory canal with a pair of forceps and ridiculed Curtis’ claims that his auriscope could see the drum of the ear.⁹⁰ There was no point, Wright insisted, in introducing a useless—or foreign—instrument to the public, if an aurist could not properly apply it to enhance his understanding or diagnosis of diseases of the ear.

To Curtis, since light sources were problematic, if not insufficient, for diagnosis through instrumentation, it was imperative to construct an instrument that overrode these limitations. The cephaloscope, he explained, was to bypass these problems by creating an “extension of the ear” that would better aid the aurist in diagnosis.⁹¹ While early instruments for aural surgery were directed towards enhancing inspection of the ear canal and ear drum, Curtis argued the cephaloscope provided a significant advantage by relying upon auscultation. This kind of technology-based transformation in diagnosis possibly could, as Jonathan Sterne puts it, allow for “[s]peaking patients with mute bodies [to give] way to speaking patients with sounding bodies.”⁹² This kind of direct application of devices and instruments on parts of the body for diagnosis was not uncommon—Eustachian tube catheterization, for instance, was used by some aurists for both diagnosis and treatment—but the cephaloscope required a new kind of epistemic possibility, one

⁸⁸ William Wright, *Deafness, and Diseases of the Ear* (London Thomas Cautley Newby, 1860), 1.

⁸⁹ Wright, *Deafness, and Diseases of the Ear*, 2.

⁹⁰ William Wright, *The Present State of Aural Surgery* (London: T.Hurst, 1834), 6-7.

⁹¹ Audrey B. Davis, *Medicine and its Technology; An Introduction to the History of Medical Instrumentation* (London: Greenwood Press, 1981).

⁹² Sterne, “Mediate Auscultation,” 123.

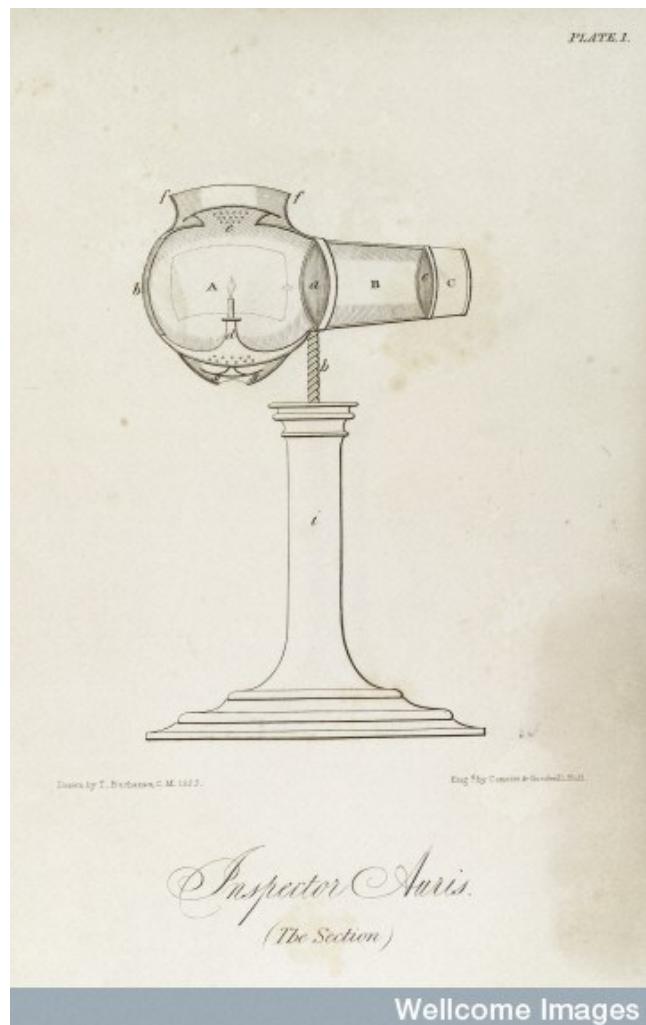


Image 17: Thomas Buchanan's "Inspector Auris" from *Illustrations of Acoustic Surgery* (1825)

which required the aurist to be trained in a (new) specific skill. As Penelope Gouk and Ingrid Skyes' survey of eighteenth-century "hearing sciences" suggests, there was a recognizable shift towards "the ear as a site of sonic possibilities," for revealing the basis of auditory perception. However, despite advancements made in outlining the structure of the internal ear and its role in auditory perception, Gouk and Skyes acknowledge that there was no single authoritative author or philosophical viewpoint; rather, multiple explanations of hearing were accommodated as part of a

broader culture of knowledge, making it all the more difficult for aurists in the nineteenth century to construct any unified approach for treating deafness.⁹³

DESIGNS OF AUSCULTATION

"[A]lmost every operator," Curtis wrote in *On the Cephaloscope*, "has had recourse to instruments and modifications of instruments (not always improvements) to assist him in its performance."⁹⁴ This principle is most evident in the numerous modifications made to the stethoscope, which was first introduced by René Laennec in his *De l'Auscultation médiate* in 1819 and became widespread by the mid-nineteenth century.⁹⁵ As Curtis explained, variations of the stethoscope were common: "the shop of the surgical-instrument maker...[exhibits] a show of some twenty different kinds: long and short; made of one piece, or composed of several; jointed, or single; trumpet-shaped, or straight; with a flat ear-piece, or one shaped to fit into the external auditory passages, &c."⁹⁶ Beginning with a brief history of how Laennec developed the stethoscope and applied it to cardiovascular diagnosis, Curtis devoted several pages of his treatise discussing how the instrument improved the treatment of many diseases through auscultation.⁹⁷ "One grand step," he declared, "was thus taken in therapeutics; for to be able clearly to diagnosticate and classify a complaint, and ascertain its causes in the alteration of nature, is half the battle."⁹⁸

⁹³ Gouk and Skyes, "Hearing Science," 515.

⁹⁴ Curtis, *On the Cephaloscope*, 62.

⁹⁵ Jacalyn Duffin, *To See with a Better Eye: The Life of R.T.H. Laennec* (Princeton: Princeton University Press, 1998); Reiser, *Medicine and the Reign of Technology*.

⁹⁶ Curtis, *On the Cephaloscope*, 62.

⁹⁷ Ibid., 63.

⁹⁸ Ibid., 63.

To Curtis, the adoption of the stethoscope in other areas of diagnostics—for instance, ascertaining the presence of a fetus or diagnosing kidney stones—made it only natural that a practitioner would eventually apply the instrument to the ear as well. Rightly so, based upon the “principles of acoustics,”

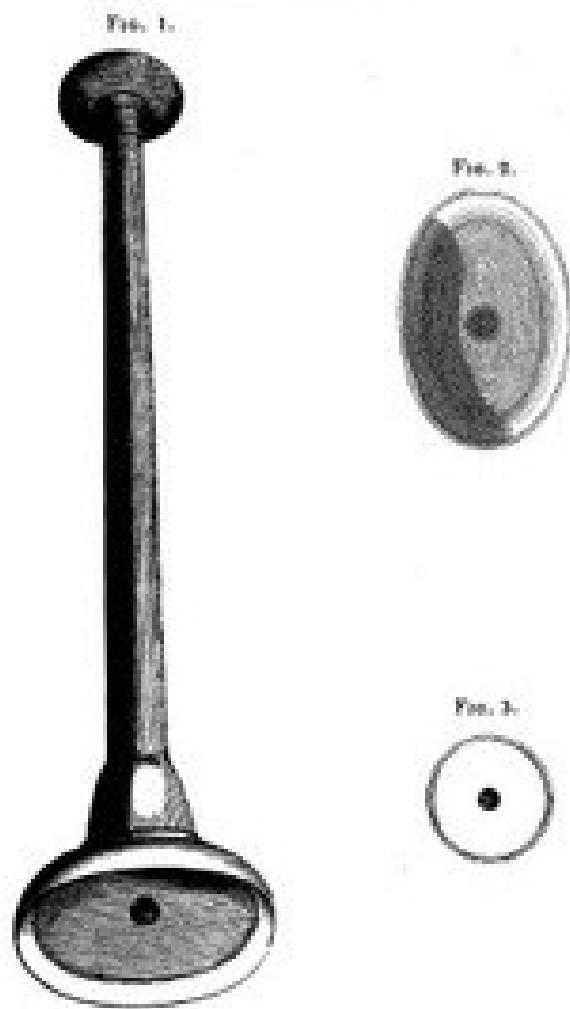
[a]s the stethoscope has been found to be useful in so many instances, it would appear to be exceedingly extraordinary should it not be of service in aural surgery, the diseases of that organ being so intimately connected with sound and the atmospheric air...Accordingly, we find recommendations respecting its use in several authors; but unfortunately the stethoscope, as at present constructed, is very unfit for such a purpose.⁹⁹

He continued, explaining the main reason for the stethoscope being “unfit” was precisely its smaller bowl—it was unable to envelope the entirety of the external air in order to prevent atmospheric sound from interfering with the sounds of the internal ear. Thus, that's where the cephaloscope shines: it was designed to apply the same auscultation skills of the practitioner as with the stethoscope, but with its defect—namely its smaller size—remedied.

There's something to be said about Curtis' branding of his instrument with a similar name as a well-recognized instrument. In one sense, the naming suggests Curtis simply piggy-backed on an already popular instrument as a form of social manipulation, adding his instrument to the same class of auscultation tools.¹⁰⁰ However, in another sense, the branding signifies how Curtis attempted to provide a sense of surgical consensus. Here, the cephaloscope could not only be the means for uniting aural surgery to the wider medical occupation, but also define the practice of “medical science” that aurists were clamouring for during the 1840s.

⁹⁹ Ibid., 66.

¹⁰⁰ Deborah Jean Warner, “What is a Scientific Instrument, When Did it Become One, and Why?” *The British Journal for the History of Science* 23 (March 1990): 83-90.



*Image 18: John Harrison Curtis' cephaloscope, from *On the Cephalosopce* (1842).*

The cephaloscope was described as a long wooden tube with an ivory ear-piece at one end and a large bowl at the other, resembling the monaural stethoscope in design and use. To use the instrument for diagnosis, the aurist was to place the bowl over the patient's ear, gently pressed and held firmly and listened, "so that sounds heard through the central canal may not be

confounded by those produced by the circumambient air.¹⁰¹ Any abnormality in the ear would be heard by the practitioner: an absence of sound from the rushing of air indicated evidence of a blockage. As the aurist enveloped the cephaloscope on the patient's external ear, the patient was instructed to block one side of the nostril, and forcibly blow through the other. If the Eustachian tube and/or tympanum were intact, there would be an obvious rushing of air. According to Curtis, the simple design of the instrument was ideal for "shewing whether there is a free circulation of air in the tympanum, and a consequent opportunity for the necessary vibrations, will aid materially in forming a diagnosis."¹⁰² He added the instrument will "be of great service in conducting [an] examination. The history of the case, the physical signs, and symptoms presented by the patient, will also aid in forming a correct conclusion as to the nature and impediment to audition."¹⁰³ For instance:

Mrs. G—...suffered from tinnitus aurium, which presented symptoms indicative of a nervous affection...She had been under the care of a surgeon, who had treated her for an obstruction of the Eustachian tube on the left side, which she was supposed to labour under. She had been recommended to have the passage catheterised, and the air-pump used for the canal; but she could not be induced to submit to the operation. In consequence of the professional opinion she had thus obtained, I was the more anxious to ascertain the state of the canal by means of the cephaloscope; and which I accordingly carried into execution at once. On applying the instrument over the ear, I directed her to close the nostrils and mouth, when the lungs were full of air, and then endeavour forcibly to expire. After two or three attempts, she succeeded in inflating the tympanic cavity, and I could distinctly hear a rush of air. There was not any obstruction, consequently, in the tube.¹⁰⁴

¹⁰¹ Curtis, *On the Cephaloscope*, 68.

¹⁰² Ibid., 77.

¹⁰³ Curtis, *Advice to the Deaf*, 41.

¹⁰⁴ Curtis, *On the Cephaloscope*, 88.

Sounds could thus convey images of the ear's internal anatomy, reveal damages to the structure of the ear or the Eustachian tube, blockages, or suggest evidence of lesions brought about by other diseases. The instrument could also aid the probe and speculum in discovering foreign bodies in the ear, and even show the "deadness off the resonance of sound in the meatus," giving evidence of a structural obstruction.¹⁰⁵ Moreover, as Curtis pointed out, the cephaloscope was a safer and perhaps more precise tool for determining obstructions of the Eustachian tubes and far less invasive to the patient than catheterization or the use of speculum and forceps.

Curtis wrote he first observed the benefits of auscultation when he visited Paris sometime in the mid-1810s and witnessed Nicolas Deleau's (1797-1862), examination of several young deaf and dumb patients, some whom recovered both hearing and speech and some who were still under treatment: "He examined the latter very carefully, applying his ear at the side of the head, in order that he might listen to and distinguish the sounds heard within the organ. I did the same at his request, and thus obtained the idea from which I was led to construct this instrument."¹⁰⁶ In France, auscultation was largely related to hospital medicine and the practice of using senses to investigate the body.¹⁰⁷ Deleau and his colleagues mastered the art of auscultation, applying it to various aspects of the body, and emphasized the importance of proper diagnosis in determining a course of treatment that would indubitably cure a disease like deafness.¹⁰⁸ Curtis was clearly impressed with the diagnostic skills of the French surgeons, but he mentioned nothing more about their approach for examining the physiology or pathology of the ear in *On the Cephaloscope*, other

¹⁰⁵ Ibid.

¹⁰⁶ Ibid., 66.

¹⁰⁷ William F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994).

¹⁰⁸ Ann La Berge and Mordechai Feingold (eds.), "Introduction," in *French Medical Culture in the Nineteenth Century* (Amsterdam: Rodopi, 1994).

than to assert that "since the introduction of the new French and German remedies, many of our former favourite medicines have been laid aside [and] pathology is better understood."¹⁰⁹

More than half of *On the Cephaloscope* is compiled from Curtis' previous works. He outlined the structure and anatomy of the ear, the organs of voice, the physiology and philosophy of sound, and the stethoscope, before going on to a quick description of the cephaloscope. He expressed this outline was necessary in "a work written expressly to demonstrate the uses and advantages of a new instrument...it is absolutely necessary, in order that the proper application of the instrument...may be understood."¹¹⁰ Detecting diseases was only half the battle. With the cephaloscope, the aurist would be "rendered cognizant of the causes of several maladies of the organs of hearing...previously unacquainted" and, with the instrument's assistance, "consequently enabled to form a more correct and decided diagnosis and prognosis."¹¹¹ This would not only avoid another situation like the Turnbull investigation, but would preserve the integrity and respectability of British aural surgery, presenting a symbol of orthodoxy for the field during a time of fragmentation.¹¹² An "extraordinary change," Curtis declared, was possible with the recent changes being made in pathology, physiology, and pharmacology for aural diseases, adding that with these advancements, an instrument for diagnosis had the potential for bringing aurists together. The cephaloscope held the potential for eliminating the "petty jealousies and rivalries of some of the members...[which proved] a great drawback to the advancement of the science," by

¹⁰⁹ Curtis, *On the Cephaloscope*, 102.

¹¹⁰ Curtis, *on the Cephaloscope*, 1.

¹¹¹ *Ibid.*, 96.

¹¹² John Harley Warner, "Medical Sectarianism, Therapeutic Conflict, and the Shaping of Orthodox Professional Identity in Antebellum American Medicine," in W.F. Bynum and Roy Porter (eds.), *Medical Fringe and Medical Orthodoxy 1750-1850* (London: Croom-Helm, 1987), 234-260; 245.

encouraging aural surgery to rise beyond the presence of the "quack-aurist."¹¹³ In so doing, the aurist could then distinguish between curable and incurable cases of deafness and contribute to the construction of standardized knowledge for aural surgery. The cephaloscope, Curtis concluded, held a promise for contributing support to the aurist's surgical authority and his need to accomplish a professional as well as specialist status, by emphasizing his superior diagnostic skills and specialized knowledge.¹¹⁴

Curtis clearly demonstrated the superiority of his instrument in diagnosing a structural defect. However, he contended the "principal use" of the cephaloscope was "in its applicability in ascertaining the state of the parts concerning in hearing in those born deaf and dumb." Here, he stressed once again, the necessity for aurists to defeat the "popular prejudice" by refining their diagnostic skills in order to effectively remedy a case of deafness. In other words, the cephaloscope held the potential to "rupture the epistemological barrier" that made the "popular prejudice" possible. The instrument not only provided closer inspections of the structures of the ear, but by aiding in diagnosing between curable and incurable deafness, it allowed aurists to modify treatment procedures accordingly. Improvements in anatomy and physiology could thus be "materially advanced" by the cephaloscope, and Curtis expresses his confidence that the instrument will service the practice in securing his surgical authority:

Although [aural surgery's] progress has been delayed by popular prejudice and other concurrent circumstances, still there has been sufficient evidence of a more thorough and general acquaintance with the anatomy and physiology of the organ as well as with the

¹¹³ Curtis, *On the Cephaloscope*, 102.

¹¹⁴ He also introduced a "muston," which was composed with the same bowl as the cephaloscope and connected with a caoutchouc bag and was designed to remedy cases with abnormal position of the tympanic membrane. Curtis, *On the Cephaloscope*, 75.

diseases to which it is subject, and the remedies which should be used for their removal, to convince the most critical inquiries that aural surgery is really on the advance.¹¹⁵

Of particular benefit were young deaf and dumb children, who could be spared from more invasive procedures for diagnosis. As Curtis explained, the most frequent causes of deafness in children were obstructions of the Eustachian tube, mucus in the external ear, herpetic eruptions, fever, and by-products of diseases such as smallpox or syphilis; symptoms on the external or intermediate ear are obvious to inspection, but once in the internal ear, symptoms are difficult to observe and diagnose. Thus, many children with curable diseases are often overlooked and their deafness continues, "till some means of restoring the healthy state of the throat and ear have been employed."¹¹⁶ This maneuver was especially beneficial for children who were both deaf and dumb, for once a child's hearing was restored, the child would soon learn to speak, and his/her role in society would then be tremendously improved.

A REAL BIJOU

As the cephaloscope was the first diagnostic instrument Curtis innovated, we must question why he felt the need to develop a diagnostic tool instead of another hearing aid device. There's no clear answer to this, but his writings suggest that in the later stages of his career he realized the only way aural surgery could defeat the "popular prejudice" was by redeeming the flaws within the occupational group. Within a nascent aural culture filled with issues of authority, identity, and social reputation were inextricably intertwined, creating a sense of frustration that

¹¹⁵ Curtis, *Cephaloscope*, v.

¹¹⁶ Ibid., 80.

made it difficult to build a foundation for specialization.¹¹⁷ Curtis wasn't unique in stressing the importance of instrumentation; many publications on aural surgery from 1820 to 1850 mention the use of instruments in some form, expressing how they have some value for diagnosis or treatment for deafness. Descriptions of Eustachian tube catheters were the most common as were proper use of forces to remove blockages or objects in the ear. These instruments, however, still depended on the use of light for examination, and could be hazardous if improperly used by unskilled hands.¹¹⁸

But none of these instruments bore possible revolutionary sentiments as the cephaloscope did. By relying upon auscultation, the cephaloscope could not only present additional information about symptoms and diseases and aid the aurist in diagnosis, it also afforded potential for a common language between specialists. The cephaloscope certainly crystallized Curtis' understanding of auscultation and listening, for it was, as Sterne asserts, a kind of reversal of the ear trumpet, in which the expert practitioner listens to the diseased body.¹¹⁹ In order to approach aural diseases and their treatments in similar fashions, aurists thus had to be specially trained in auscultation. To Curtis, this special skillset could draw clear boundary lines between the trained and skilled aurist and the "quack aurist."

¹¹⁷ Michael Brown, "Rethinking Early Nineteenth Century Asylum Reform," *The Historical Journal* 49.2 (2006), 430; Irvine Loudon, "Medical Practitioners 1750-1850 and the Period of Medical Reform in Britain," in *Medicine and Society*, ed. Andrew Wear (Cambridge: Cambridge University Press, 1992): 219-248; 221.

¹¹⁸ For instance: William Wright, *An Essay on the Human Ear* (London: Longman, Hurst, Reese, Orme, and Brown, 1817) and *The Present State of Aural Surgery* (London: T. Hurst, 1834); Thomas Buchanan, *Illustrations of Acoustic Surgery* (London: Longman, Hurst & Co., 1825); Hugh Neill, *A Report upon Deafness when resulting from the Eustachian passages* (Liverpool: Joshua Walmsley, Church St., 1840); William Harvey, *The Ear in Health and Disease* (London: Henry Renshaw, 1854).

¹¹⁹ Jonathan Sterne, "Mediate Auscultation, the Stethoscope, and the "Autopsy of the Living:" Medicine's Acoustic Culture," *Journal of Medical Humanities* 22.2 (2001): 115-136.

As evident in an 1842 letter to Sir Robert Peel (1788-1850), the cephaloscope was also an attempt on Curtis' part to restore his career to its former glory. Peel was an old patient of Curtis,¹²⁰ Governor of the Royal Dispensary, as well as Prime Minister of Britain (1834-5; 1841-6), and thus possessed the influential and aristocratic ties for Curtis.¹²¹ Without aristocratic support any longer, Curtis was left vulnerable and thus pleaded for Peel's assistance.¹²² In the letter, Curtis appeals for a position in Queen Victoria's household as Surgeon-Aurist, referring to his previous appointments to George IV and his twenty-five years of experience at the Royal Dispensary as evidence of his merits. Concluding the letter, he adds,

In order to shew that I have kept up with the modern improvements in aural science I may refer to my recent work on the Cephaloscope, a copy of which I beg to leave herewith, which contains some of the result of a form of inspection made by me in the autumn of 1840 to the Principal Hospital of the Continent.¹²²

Curtis' request was denied. The letter, however, reveals another interesting historical aspect of his motives in showcasing the cephaloscope: it was not enough for Curtis to demonstrate his new instrument was superior in diagnosis than other aural instruments, but, as the letter indicates, he had to declare it "modern" and "scientific." In the spirit of reform and a commitment to his claims for surgical authority, the cephaloscope was constructed as being more than another "quack gimmick" in aural surgery. In attempting to redeem his reputation, Curtis was distancing himself as much as possible from the image of the "quack aurist," following the imperatives laid by James Yearley that drops, syringing, and nostrums should be left in the past.

¹²⁰ N.D. Jewson, "Medical Knowledge and the Patronage system in Eighteenth Century England," *Sociology* 8 (1974): 369-385; 380.

¹²¹ Brown, *Performing Medicine*, 100.

¹²² Letter from John Harrison Curtis to Sir Robert Peel, 1842. British Library Ms 4051.F.178.

Like Curtis, Yearley wanted to reform aural surgery towards a more favorable light. As discussed in Chapter Three, Yearsley was outspoken about the "engine of quackery and mischief," which was characteristic of empirics in aural surgery. If aural surgery possessed any "scientific" value, he argued, there needed to be less of an outcry against surgical operations such as Eustachian tube catheterization, less false statements and exaggerated language, and more practice and training.¹²³ He insisted that only then would it be possible for aural surgery to unify and orient itself towards a collective desire to provide effective therapeutic intervention and construct a body of knowledge with pedagogical ends. Moreover, any instrument should be based on "considerable manual dexterity, delicacy, and experience," in order to prevent any fatal errors that could further propel the existing "popular prejudice" that so long plagued the field of aural surgery.¹²⁴

The Dublin oculist and aurist William Wilde (1815-1879) certainly reflected the image of the aurist Curtis desired to be: "A practitioner in aural surgery, or, if it pleases the public to call him, an Aurist, must, or at least ought to be, a well-educated surgeon or physician, who applies the recognised principles of medicine and surgery to diseases of the organ of hearing."¹²⁵ Wilde acquired an interest in anatomy, medicine and surgery at a young age, completing his training in Dublin at the Rotunda Hospital, and eventually extending his education on eye and ear surgery at Moorfields Hospital, the Hunterian Museum, and at the Allgemeines Krankenhaus in Vienna. By 1841, he returned to Dublin and opened a practice as an eye/ear specialist from his home.¹²⁶ He

¹²³ James Yearsley, *On Deafness, in a series of Contributions to Aural Surgery* (London: Nisbet & Co., 1844).

¹²⁴ Yearsley, *Deafness Successfully Treated*, vi.

¹²⁵ William R. Wilde, *Practical Observations on Aural Surgery and the Nature and Treatment of Diseases of the Ear* (London: John Churchill, 1853), 50.

¹²⁶ James McGeachie, "Wilde, Sir William Robert Wills (1815-1876)," *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

was also an outspoken critic of "quack aurists," arguing that they served "to bias the public mind against the treatment of aural diseases," with their dishonest nostrums and left the field "an opprobrium to medicine."¹²⁷ The well-instructed aurist, on the other hand, he continued, "possesses a knowledge and a power which is not general among the profession—*of making an accurate diagnosis*, which, when given with honesty, will frequently save the patient much anxiety, unnecessary suffering, and loss of time and money (original emphasis)." Edward Cock (1805-1892), surgeon at Guy's Hospital and nephew to Astley Cooper, echoed Wilde's remarks, stating that a "spirit of inquiry into the symptoms and degrees of deafness...may lead the establishment of a more accurate and efficient diagnosis; and enable the aurist to distinguish between those cases which are irremediable by art, and those which may be expected to derive benefit from judicious treatment."¹²⁸

While the issue of surgical authority remained central for aurists fashioning themselves as specialists, the intra-professional rivalries and accusations of incompetence often derailed their efforts for surgical consensus. Henry Savage, Professor of Anatomy at Westminster Hospital, for instance, was critical of the intra-professional rivalries and bickering, exclaiming that "one would be inclined to suppose that diseases of the ear were considered by our best surgeons as utterly unworthy of their attention; for, with one or two exceptions, this department of our science is utterly engrossed by a set of the most bare-faced quacks that ever the world produced!"¹²⁹ Even Wilde was critical of rivalries. In his *Practical Observations on Aural Surgery* (1853), he devoted several pages to pillorying aurists for their incompetence and fraudulent practices, including

¹²⁷ Wilde, *Practical Observations on Aural Surgery*, 4-5.

¹²⁸ Edward Cock, "A Contribution to the Pathology of Congenital Deafness," *Guy's Hospital Reports* 3 (1838), 306.

¹²⁹ Henry Savage, "On Quackery and Ear Medicine," *The Lancet* 31 (August 1839), 823-828; 827.

Curtis, whom he categorized as the worst amongst the worst "quack aurists," for "simply recomposing the words of his first work [the first edition of *Treatise*]; for as to new ideas, there were none, nor old ones to add them to (original emphasis)." ¹³⁰ Yet, for Wilde, as for Yearsley and Curtis, specialization was to require more than just surgical consensus. It needed to contain a promise of unification, to challenge both external outrage of quackery and internal bickering amongst aurists, and present a kind of surgical authority for deafness that was only available from the properly trained aurist. For Curtis in particular, the cephaloscope could deliver on this promise.

The *Lancet* wrote a favorable review of Curtis' slim pamphlet, *The Present State of Aural Surgery*. The article cited Curtis' argument about the benefits aural surgery could derive from specialism, especially his remarks that "The dentist, the oculist, and...the aurist, have accomplished more in their particular departments during the last thirty years, than the whole medical profession had effected in them for three hundred years previously."¹³¹ "The truth of this opinion," the writers continued, "cannot at the present day be contested, particularly when we observe the important and valuable advances which subdivision of labour has contributed to the respective departments of the oculist, the dentist, and the aurist."¹³² In general, even though Curtis was credited for his unbounded enthusiasm for specialism, sometimes even sarcastically, his cephaloscope scarcely received any mention other than a simple statement outlining its use.¹³³ Curtis contended that only by "a close and undivided attention to any one branch of the medical

¹³⁰ Wilde, *Practical Observations on Aural Surgery*, 23.

¹³¹ *The Lancet* 37 (November 1841): 241-243; 241.

¹³² *Ibid.*

¹³³ *The British Medical and Foreign Review*, for instance, admitted they "had long beheld with astonishment the efforts made in this patriotic cause by Mr. Curtis; and we confess, we had deemed him not only unrivalled but unrivallable, seeing he had concreted to it no less than SIXTEEN publications." "Curtis and Yearsley on Aural Surgery," *British Foreign and Medical Review* 13 (April 1842), 509-512; 509.

sciences can we hope to attain eminence," to apply properly the skills for improving treatments and eradicating aural diseases; but even precise diagnosis could hardly improve treatments if the practitioner "deprecates such bloody deeds."¹³⁴ But Curtis himself was known throughout his career for refusing to perform bold operations, which he insisted are often "undertaken by men least qualified to conduct them with success," instead of seeing them revolutionary, progressive, or even challenging, as Yearsley and Toynbee did.

There are many possibilities as to why the cephaloscope did not appeal to other aurists, one of which of course, is Curtis' fallen reputation. Economic constraints may also have played a role, for the costs of building instruments would have affected a practitioner's decision to employ it in practice—an instrument's history is still about economics and business.¹³⁵ Or, as Gretchen Worden notes, a practitioner's options at any given time are based on such considerations as familiarity, availability, or custom.¹³⁶ Improved diagnostic instruments—especially the speculum—with better light sources, such as Scottish physician Adam Warden's "Prismatic Auriscope," may have appealed to aurists' familiarity and didn't require any retraining of their senses.¹³⁷ It's also likely that the design similarity between the cephaloscope and stethoscope

¹³⁴ Curtis, *On the Cephaloscope*, 99.

¹³⁵ Jim Bennett, "Shopping for Instruments in Paris and London," in Pamela H. Smith and Paula Findlen (eds.), *Merchants & Marvels: Commerce, Science, and Art in Early Modern Europe* (New York & London: Routledge, 2002), 370-395; Larry Stewart, "Science, Instruments, and Guilds in Early-Modern Britain," *Early Science and Medicine* 10.3 (2005): 392-410; David Pantalony, *Altered Sensations: Rudolph Koenig's Acoustical Workshop in Nineteenth-Century Paris* (London & New York: Springer, 2009).

¹³⁶ Gretchen Worden, "Steel Knives and Iron Lungs: Medical Instruments as Medical History," *Caduceus* (Autumn 1993): 111-118.

¹³⁷ Adam Warden, "Description of a Totally Reflecting Prism, employed for illuminating the open cavities of the Body, with a view to facilitate the examination of Disease, and the application of remedial means in such situations; illustrated with an Ear 'Speculum' or Prismatic auriscope, adapted to this method of observation," *The Edinburgh New Philosophical Journal* 37 (1844): 273-284. "The advantage of Prismatic Illumination consists in the opportunity it affords of examining the recesses of the open cavities of the body

could have been lost during the many modifications to the stethoscope that emerged in the 1830s and 1840s. Perhaps too, as Nicolson and Reiser argue, because practitioners had to be specially trained in auscultation, some may have resisted change and continued examination of the ears by sight in order to avoid "retraining" their ears.¹³⁸

But in closely examining Curtis' career in context with the instrument, it seems that the instrument and the treatise, *On the Cephaloscope*, lacked one significant factor that was present in all of Curtis' other works and instruments: *Curtis* himself. As Worden explains, even well-designed instruments could scarcely succeed without widespread publicity.¹³⁹ Curtis was the energetic force behind all advertisements and attention that his previous publications, hearing trumpets, and Royal Dispensary received. It's likely without the support of his patrons, he lacked the financial means to do so, for without means to market his product, he could not defend his authority and credibility.¹⁴⁰ For instance, in *Advice to the Deaf*, he declared to devote the remainder of his career to reforming aural surgery, a remark that brought mockery from the *British and Foreign Medical Review*:

And these are not words, of course; no, Mr. Curtis has stamped them with an "eternal blazon" of truth, and hallowed them by the most heroic self-sacrifice...Unheard-of magnanimity! It is, no doubt, for want of this "exclusive devotion" that we have found it impossible to make the bowl of the new instrument to fit the inequalities of surface in the aural region so as to exclude the access of the air—a circumstance, as all auscultators know, essential to the appreciation of the stethoscopic phenomenon...[W]e declare that...Sir

by light of any desired intensity, and that placed on either side of the observer, so as not to be liable to be intercepted by his shadow, nor to interfere with the freedom of any operative procedure" (279)

¹³⁸ Nicolson, "The Introduction of Percussion and Stethoscopy," 135. Stanley Joel Reiser, *Technological Medicine: The Changing World of Doctors and Patients* (Cambridge: Cambridge University Press, 2009), 9.

¹³⁹ Worden, "Steel Knives and Iron Lungs," 115.

¹⁴⁰ Hannah Barker, "Medical Advertising and Trust in late Georgian England," *Urban History* 36.3 (2009): 379-398; 380.

Robert Peel should hesitate to appoint Mr. Curtis not merely Aurist to the Queen, but Auscultator-General to the Cabinet and the Horse-Guards, we shall withdraw such confidence in his government as we have hitherto given it.¹⁴¹

Curtis never had the opportunity to defend himself, speak out against these criticisms or throw his weight behind promoting the cephaloscope as *the* diagnostic instrument for aurists. Notwithstanding his efforts, his career never recovered after Toynbee's criticisms or his dismissal from the Royal Dispensary. His fortunes continued to dwindle, as he is listed in the Bankruptcy Register a second time on 24 February 1843. Presumably since he was unable to pay his debts, Curtis retired to the Isle of Man, "broke in fortune, in condition, and in spirit," and spent the last years of his life melancholic and insane, confined in an asylum.¹⁴²

CONCLUSIONS

Prior to the 1830s, the success of aurists in the market for medicine could be attributable to their skills as entrepreneurs. Strategies for showcasing occupational success in the form of publications, patronage, institutions, were largely directed towards the construction of their authority as practitioners in order to attract patients. As the 1830s progressed, spearheaded by the broader reform movements in medicine, aurists began to turn away from securing their external legitimacy and instead devoted their attention towards creating an internal consensus on treatments for aural diseases.

Yet, the movement towards specialization was not always an easy one. The story of Curtis' cephaloscope provides us with different layers of complexity for evaluating problematic areas of

¹⁴¹ "Curtis and Yearsley on Aural Surgery," 512.

¹⁴² Clarke, "The Career of a Specialist," 370.

historiography, including the formation of specialist identity and the rhetoric of “medical science.” Aurists who identified themselves as specialists not only maintained a strong desire to firmly integrate themselves within the broader medical occupation, but they also aimed to confirm their legitimacy by distancing themselves from “quack aurists.” The difficulty of identifying the specialist, however, certainly created a crisis of identity among aurists, a crisis that Curtis hoped could be resolved by advocating a new set of diagnostic skills that would set the aurist apart from the quack. As Christopher Lawrence reminds us, this crisis of identity had deep bearings for aurists claiming surgical authority, for “[h]ow was the public to recognize such a man? What constituted his identity and entitlement to authority?”¹⁴³

Aurists wrote about their own views for a specialist identity and argued for surgical authority. This does not, however, presuppose that all aurists were striving for a unified profession, or even if there existed one outside their own self-fashioning. Nor did it mean all aurists self-fashioned themselves in the same way; individual aurists viewed legitimatization differently, self-fashioning themselves in terms of how they intended to profess their skills. Here’s where the rhetoric of “medical science” comes into play, for it could provide aurists with a collective desire to maintain jurisdiction over treatment of the deaf public. Yet, no matter how an aurist self-fashioned his identity, or even if aurists could not come to terms in defining themselves as a group during the 1830s, they at least knew what they were *not*: they were not this dangerous “other,” this opposition, threat, or ridicule, that contradicted a vision of aural surgery’s identity by prescribing fancy remedies for deafness with no medical bearings.¹⁴⁴

¹⁴³ Lawrence, “Medical Minds, Surgical Bodies,” 161.

¹⁴⁴ Ibid., 169.

Despite being marked by an unstable and fluid identity mirrored in intra-professional strife, Curtis, William Wright, and James Yearsley insisted a strategy was required to unify their field. Such a strategy would transcend accusations of quackery and form a solid foundation for building a new science of aural surgery. Other aurists also attempted to provide means for surgical consensus. For instance, in 1848, William Harvey and Thomas Buchanan published the first synoptical table of all known disease of the ear, their symptoms, causes, and treatment.¹⁴⁵ The table is a very large poster folded together and glued to the binding of a book, suggesting that Harvey and Buchanan intended for their poster to be posted on a practitioner's wall for easy reference as well as to standardize diagnosis and treatment. Yearsley also stressed the importance of surgical consensus through proper instruments, linking between medical science and clinical practice.¹⁴⁶ As with Curtis and his cephaloscope, Yearsley introduced a diagnostic instrument—the speculum auris—that he argued was an improvement than previously existing ones, many of which were too large to properly be inserted into the ear canal, thus causing discomfort to the patient. The speculum auris, introduced in the *Lancet* in 1839, was better able to fit into the ear canal and, in some cases, even allow the aurist to obtain a sufficient view of the membrana tympani.¹⁴⁷ Toynbee as well, advocated the use of his newer speculums but was especially notable

¹⁴⁵ William Harvey and Thomas Buchanan, *New and Improved synoptical table of the diseases of the human ear, with their symptoms, causes and treatment* (London: Longman, Brown, Green, and Longmans, 1848).

¹⁴⁶ Steve Sturdy, "Looking for Trouble: Medical Science and Clinical Practice in the Historiography of Modern Medicine," *Social History of Medicine* 24.3 (2011): 739-757.

¹⁴⁷ To support his claim that while "at first sight it may appear an instrument of more painful application than the one in ordinary use, but it will not be found in practice," Yearsley urged interested practitioners to view it at the Lancet Office or at the surgical maker Weiss's on 62 Strand. James Yearsley, "The Ear Speculum," *The Lancet* 32 (7 September 1839): 880.

for his creation of an “otoscope” used for diagnosis.¹⁴⁸ George Pilcher (1801-1855) also attempted to raise the standards of aural surgery on more “scientific grounds.”¹⁴⁹

Within the complicated context of aural surgery, this is where Curtis argued for the value of the cephaloscope: it provided a safe and easy approach for the aurist to determine various types of deafness and discern the best possible treatment for the patient, debunk the “popular prejudice,” and avoid another public fiasco like the Turnbull case. The cephaloscope may never have taken hold of the imagination of aurists, but Curtis never stirred from his initial agenda to improve aural surgery and eradicate the “popular prejudice” that isolated the deaf and dumb into their misery. One of Curtis' most powerful (and paternalistic) statements regarding the social limitations of the deaf comes from his clinical report on the Royal Dispensary: "Deafness is universally spoken of as a defect; and is one of the most serious description...Who, for example, would choose to employ a deaf surgeon, or consult a deaf physician, hire even a deaf servant, or enlist a deaf man for a soldier?"¹⁵⁰ Incapacitated by the deprivation of the sense of hearing, the deaf person suffers and is left to his own sources; without medical intervention that could restore the hearing, the deaf person "becomes a hermit in the midst of society." It is the duty of the aurist, Curtis emphasized, to employ a degree of social consciousness to improve the lot of the deaf. He can do so by expanding

¹⁴⁸ Joseph Toynbee, “On a New Ear Speculum,” *The Lancet* 56 (5 October 1850): 390-1.

¹⁴⁹ Pilcher was admitted as member of the Royal College of Surgeons in 1824 and immediately afterwards began practicing at the Royal Dispensary for Diseases of the Ear. Shortly afterwards, he was appointed lecturer on anatomy, physiology, and surgery at the Webb Street School of Medicine in Bermondsey, and became consulting surgeon to the Surrey Dispensary; the Webb Street school eventually amalgamated with other Borough hospitals, attaching Pilcher to the Lane's School, at St. George's Hospital. In 1842, he was elected president of the Medical Society of London. Though he specialized in ear surgery after being awarded the Medical Society of London's Fothergillian gold medal in 1838 for his *The Structure, Economy, and Diseases of the Ear*, Pilcher did not participate in many of the more vociferous debates in aural surgery, preferring, like William Harvey, to keep himself occupied with his clinical and lecturing duties. D.A. Power, “Pilcher, George (1801-1855),” *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004).

¹⁵⁰ Curtis, *A Clinical Report*, 11.

his knowledge of aural diseases, to continuously find newer and more effective treatments for curing deafness, and above all, to combat the "popular prejudice" that plagued aural surgery and hindered aurists' progress.

5. PRIORITY, PIRACY & PRINTED DIRECTIONS EXPERTISE AND THE ARTIFICIAL TYMPANUM

"[I]n the present day, many English aurists who prescribe cotton-wool in cases of perforated membrane, direct the patient to form it into a disc...The difference between various artificial drum-heads is not one of "disc" or "pellet," but of materials."¹

INTRODUCTION

In 1848, James Yearsley (1805-1869) published an article in *The Lancet* introducing his new technological marvel: an artificial tympanum made of cotton-wool and affixed with a silver wire stem. Combined with a set of precise directions for inserting the device, Yearsley claimed his technology could drastically cure cases of deafness caused by perforation of the tympanic membrane (eardrum).² Like John Harrison Curtis and his cephaloscope, Yearsley hoped his device would contribute to the creation of a professional consensus in order to solidify aural surgery's reputation as a legitimate surgical speciality. Although the device was initially applauded by medical practitioners, it did not drastically transform aural surgery's surgical authority as

¹ Lennox Browne, "Artificial Drum-Heads," *The British Medical Journal* 2.827 (4 November 1876): 587-8.

² The membrana tympanum, also called tympanic membrane or eardrum is a thin, oval, membrane separating the tympanic cavity (the middle ear) from the external auditory meatus. It also protects the tympanum, the bony cavity on the inner side of the tympanic membrane, where the malleus, incus, and stapes bones (collectively the ossicles) are housed, and where the passageway of the Eustachian tube terminates. Perforation of the eardrum was a common ear injury, often resulting from infection, trauma, loud noises, or blockages in the Eustachian tubes. In most cases, the damage is minor and the eardrum heals quickly on its own. Severe cases are often accompanied by blood and/or pus discharge and may induce hearing loss, serious infections in the middle ear, or severe tinnitus. Consequently, the rupture requires surgical intervention to correct the damage, which, during the nineteenth century, was managed by removing secretion by syringing or using a Eustachian tube catheter. Foreign objects were also inserted into the ear as a prosthetic to either serve as a protective barrier from further damages, or to relieve the patients' discomfort.

Yearsley hoped. Four years later, Joseph Toynbee (1815-1866) introduced a modified and intricate version of the device, named “artificial membrana tympani,” and constructed of two fine plates of silver affixed with a silver wire stem, between which a layer of vulcanized India rubber or gutta percha was placed. As Toynbee explained, his device was the outcome of a series of anatomical researches into healthy and diseased tympanums. His work revealed hearing loss was frequently observed in cases of perforation because the perforation prevented “sonorous undulations” from reaching the inner ear. The artificial membrana tympani thus served as a substitute for the natural membrane in order to restore hearing.³

When Toynbee first introduced his artificial tympanum, he failed to reference Yearsley’s cotton-wool as its predecessor, leading Yearsley to dismiss Toynbee’s innovation as “another pretended novelty in aural surgery.”⁴ However, when the Society of Arts awarded Toynbee a medal for his innovation in 1853, Yearsley loudly proclaimed his outrage with the injustice, declaring he needed to stand up to “consult and advance the honour and dignity of my Profession by using every means which shall best serve to advance what is high and right, and put a stop to what is low and wrong.”⁵ What then followed was a public and nasty battle characterized by ego and self-aggrandizement between Yearsley and Toynbee that splashed across the editorial pages of *The Medical Times and Gazette*, *The Lancet*, and *The Provincial Medical and Surgical Journal*. From 1853 to 1857, Yearsley and Toynbee exchanged arguments and insults on a diversity of topics: claims of their device’s effectiveness, the selection of their materials, priority issues,

³ Joseph Toynbee, *On the Use of an Artificial Membrana Tympani in Cases of Deafness* 6th Edition (London: John Churchill, 1857), 14.

⁴ James Yearsley, “On Mr. Toynbee’s New Aural Apparatus,” *Provincial Medical and Surgical Journal* 16.17 (18 August 1852): 431.

⁵ Ironically, Yearsley was quoting (or plagiarizing) Toynbee’s earlier statement. James Yearsley, *Controversy on the Artificial Tympanum* (London: H. Bailliere, 1858), iii. Joseph Toynbee, “The Artificial Membrana Tympani,” *Medical Times and Gazette* (12 December 1857): 614-5; 615.

theories on how the artificial tympanum functioned, the anatomy of the ear, and even whether Toynbee should, in good faith, return the Society of Arts medal.⁶ Issues of credit, priority, as well as accusations of quackery, were all common themes drawn out from these exchanges.

A dominant feature of these exchanges is the issue of credit. Initially, Toynbee never acknowledged or credited Yearsley for his earlier contribution. Although some aurists argued Yearsley deserved credit, he was not the first to develop the cotton-wool method. Simultaneous developments were mentioned by German aural practitioners—Carl Gustav Lincke in 1845⁷ and Erhard of Berlin, who also recommended an insertion of cotton-wool for improving hearing in 1849⁸—although none of these men were aware of the developments and each claimed to be the first to use a prosthetic for improving hearing.⁹ Toynbee eventually gave “full justice” to Yearsley in an 1857 lecture at St. Mary’s Hospital, but he refrained from crediting him as the original inventor of the artificial tympanum.¹⁰ Mario Biagioli’s work has outlined that different forms of

⁶ Toynbee’s reply is hilarious: “The Society of Arts had, I believe, all the documents before them when they awarded me their medal; if they had not, and if they are not satisfied with their award, I will at once replace the medal in their hands, together with Mr. Yearsley’s paper, a box of his patented tympanums, and my three Royal Society’s papers, and my brochure; if they confer it on Mr. Yearsley, I will promise to be at the expense of a new medal, or even pay for one of any other medal. If the medal is awarded to Mr. Yearsley, and I pay for it, I shall stipulate that on one side of it there be a portrait of the discoverer receiving five shillings and sixpence, the price of a box of tympanums just sold to a stone deaf old lady. The inscription to be as follows:—“Awarded to the erect figure on the opposite side, who seeing an American’s deafness improved by having the orifice in his drum closed by a piece of wet paper, with a bold flash of inventive genius suggested in place of paper cotton wool, and who by his profound knowledge of anatomy subsequently named his “magical bits of wool” —*artificial tympanums!*” Joseph Toynbee, “The Artificial Membrana Tympani,” *Medical Times and Gazette* (17 November 1857): 614.

⁷ Carl Gustav Lincke, *Handbuch der theoretischen und praktischen Ohrenheilkunde* (Leipzig: Hinrich, 1845).

⁸ As mentioned by Anton Friedrich Tröltsch in *The Diseases of the Ear, Their Diagnosis and Treatment: A Textbook of Aural Surgery*, trans. D.B. St. John Roosa (New York: William Wood & Company, 1864), 187.

⁹ Adam Politzer, *History of Otology Volume I: From Earliest Times to the Middle of the Nineteenth Century*, trans. Stanley Milstein, Collice Portnoff, and Antje Coleman (Pheonix, Arizona: Columella Press, 1981).

¹⁰ Yearlseay nevertheless viewed this gesture as a backhanded insult. Shortly after, Yearsley published a pamphlet titled *Controversy on the Artificial Tympanum*, compiled of reprints of his exchanges with Toynbee as printed in *The Medical Times and Gazette*. As he explained, the pamphlet was not to “parade

“cultural credit” were regulated by various social economies; financial reward was at times less valuable than social status and the possession of a respectable reputation.¹¹ Biagioli’s use of various metaphors of economy provides a framework for assessing how makers moved between different markets, particularly as Victorian aurists attempted to reconfigure their field and transfer its spatial reputation from market vendors and private clinics in houses towards hospitals and specialized institutions.¹² Yearsley’s issue with priority was less about monopoly over a particular market, and more about receiving “full justice” for his skills as a specialized surgeon and defending his credibility as a medical innovator.

Another aspect of credit is related to the naming of the device. Yearsley never defined his cotton-wool pellet as “artificial tympanum,” often referring it as a “new method” or “my remedy.” Toynbee, on the other hand, introduced his device as “artificial membrana tympani.” As the rivalry reached a crescendo, Yearsley began referring to both his and Toynbee’s versions as the “artificial tympanum,” indicating that they were the same technology, with Toynbee’s a modification of the “original” cotton-wool. Even Yearsley’s 1857 patent application, for “An improved method of and instrument for applying artificial tympanums” (UK Patent Application no.2737) which was filed at the crucial moment of the debate, can be viewed as a reflection of Yearsley’s attempt in ensuring his cultural credit was duly received.¹³ By 1865, the rivalry between Yearsley and Toynbee tapered off as both versions of the artificial tympanum were widely accepted and advocated by

[his] triumph over and adversary,” but rather motivated by “the cause of Science” for investigating the truth of their claims in the face of justice. Yearsley, *Controversy on the Artificial Tympanum*.

¹¹ Mario Biagioli, *Galileo’s Instruments of Credit: Telescopes, Images, Secrecy* (Chicago: University of Chicago Press, 2006).

¹² Christelle Rabier, “Introduction: The Crafting of Medicine,” in “Fitting for Health: The Economy of Medical Technologies, 1600-1850,” special issue of *Technology & Culture* (forthcoming, July 2013).

¹³ *Specifications of James Yearsley: Artificial Tympanums*. Great Seal Patent Office, 1857 (London: George E. Eyre and William Spottiswoode). Yearsley only received provisional protection for his innovation, as he did not file the necessary papers for Letters Patent within the period required.

aurists who found the technology beneficial in hundreds of cases with perforations, marking the “great age of innovation” regarding treatments of tympanic perforations. Artificial “eardrums” or “drumheads” were also frequently used after the 1880s to refer to modified types. To maintain the historical integrity of the artificial tympanum’s history, I shall refer to the device either as Yearsley’s “cotton-wool pellet” or as Toynbee’s “artificial membrana tympani” when speaking to its use prior to the 1860s. However, as the nineteenth-century drew to a close, the device was commonly referred simply as “artificial tympanum”—Toynbee’s version.

As this Chapter shows, the history of the artificial tympanum is a story fraught with similar themes that plagued aural surgery’s past: jealousy and rivalry, accusations of quackery and professional incompetence, all tied up with claims for legitimacy, the rhetoric of “medical science,” and technological innovation. It is a story tied together with multiple threads in history: to hearing and sound reproduction technologies, to advancements in anatomy and pathology, to credibility and expertise, to Victorian self-image and prosthetics, and to advertising and marketing. This Chapter uses the artificial tympanum as a tour guide for investigating how Victorian aurists governed their expertise to claim legitimacy for their specialty, by applying theories of sound conduction and anatomy of the ear in the construction of the device. Beginning with a background into Yearsley and Toynbee’s respective careers, the first part of the Chapter traces how aurists rode the tide of medical reform, tying themselves to the theme of progressiveness, and adopting the rhetoric of “medical science” and technological innovation to pave a new path for studying diseases of the ear. Creating and applying new types of expertise—clinical experimentation, pathological anatomy, statistics—allowed aurists, especially Yearsley and Toynbee, to redraw the boundary lines for their specialty. The redrawing was largely aimed at making clearer distinctions between the “qualified aurist” and the “quack aurist” and is reflected in Yearsley and Toynbee’s

respective selecting of materials in the construction of the artificial tympanum: Yearsley's use of cotton wool followed a series of rigid clinical trials, whereas Toynbee constructed his India-rubber design upon anatomical observations and theories of sound conduction.

The second half of this Chapter jumps chronologically towards the closing years of the nineteenth century, to examine how aurists responded to the benefits of the artificial tympanum. The superiority of the artificial tympanum as a surgical device was not just restricted to how its materials incorporated Yearsley's and Toynbee's respective expertise and theories of the ear. The device *worked* and was, for the most part, safe to use, providing tremendous credibility for aural surgery. This was a remarkable improvement from simple syringing or painful, if not ineffective, nostrums and emetic, and certainly less dangerous than Eustachian tube catheterization. The "miraculous" benefit of the device was also assented by aurists who tried the treatment in their own patients, patients who would shortly exclaim, "I can hear!"¹⁴ Aurists expressed that a user must not insert the artificial tympanum themselves without first being properly fitted for one. A diagnosis of perforation was crucial to ensure that the device would be beneficial. Moreover, it ensured that it would not be marketed as another catch-all cure; rather, even aurists who later modified Yearsley and Toynbee's constructions outlined the selection of materials and design was carefully directed towards improving the device's functionality.¹⁵ The artificial tympanum, many

¹⁴ James Hinton, *The Questions of Aural Surgery* (London: Henry S. King & Co., 1874), 191.

¹⁵ Aurists especially discussed the merits of Yearsley and Toynbee's models in increasing hearing amplification. For instance, James Keene, aural surgeon at Westminster Hospital, favoured Yearsley's device for its simplicity. J.P. Pennefather, surgeon at the Royal Dispensary for Diseases of the Ear, also found Yearsley's method more satisfactory, though he noted Toynbee's version was better suited for children, likely due to the straight edge of the silver stem of Toynbee's artificial tympanum, which would allow children to easily insert the device with limited aid from an adult [J.P. Pennefather, *Deafness and Diseases of the Ear: Their Causes and Treatment* (London: Baillière, Tindal, and Cox, 1873), 92]. On the other hand, Henry Macnaughton Jones, surgeon to Cook Ophthalmic and Aural Hospital, took a more cautious approach, addressing the "experimental" status of the artificial tympanum and explaining that "we must

aurists declared, was a reflection of a precise surgical expertise of diagnosis that sought to improve the hearing of a selected group of deaf individuals. However, by the end of the century, the benefits of the device were grossly advertised by “quack aurists,” particularly in America, many of whom found incredible fortunes by selling crude versions of “artificial eardrums” at exorbitant prices.

The history of the artificial tympanum and its development has only been briefly discussed in scholarship. In surveys of hearing aid technologies, its categorization as an assistive device is ambiguous. S.D.G. Stephens and J.C. Goodwin, for instance, argue that the artificial tympanum should not be classified as a hearing aid, which relies upon user autonomy; the artificial tympanum does not require the *direct* control of the user, but rather requires continuous assistance from the surgeon.¹⁶ Elisabeth Bennion only mentions Yearsley’s version, whereas Kenneth Berger provides a full overview of the various types of artificial tympanums, including late nineteenth/early twentieth-century versions marketed by Americans.¹⁷ Articles in specialty journals such as the *Journal of Laryngology & Otology* refer to the device’s history when discussing clinical cases or providing a broad overview of treatments for perforation of the tympanic membrane.¹⁸ The only comprehensive history on the artificial tympanum is an article by physicians Eugene Chu and Robert K. Jackler, who categorize the device as a “brilliant innovation

not be satisfied with a few trials with the cotton wool or disc, but we may have to re-apply it several times to ascertain whether it improves the hearing or not.” Henry Macnaughton Jones, *A Practical Treatise on Aural Surgery* (London: J&A Churchill, 1878), 71.

¹⁶ S.D.G. Stephens and J.C. Goodwin, “Non-Electric Hearing Aids to Hearing: A Short History,” *Audiology* 23 (1984): 215-240.

¹⁷ Elisabeth Bennion, *Antique Hearing Devices* (London & Brighton: Vernier Press, 1994);

¹⁸ A few selections: V.Rautt and A.G. Kerr, “Artificial Tympanic Membrane and Ossiculoplasty,” *The Journal of Laryngology & Otology* 115 (June 2001): 485-487; Albert Murdy, “Letter to the Editor: History of Tympanoplasty,” *Otology & Neurotology* 26 (2005): 551-5; Matthew R.B. Farr, Ranit De, and Richard M. Irving, “History of Otology: Cautery of the Tympanic Membrane: The Lesser Known History of Myringoplasty,” *Otology & Neurotology* 33 (2012): 270-276.

that peaked during the first years of the 20th century,” declining in use as more surgical experience revealed the device’s limited value.¹⁹ They place the story of the artificial tympanum within the broader context of scientific innovation and evolution, stressing that its development was driven by aurists’ responsibilities for treating their patients, as well as patients’ desperate desire to improve their hearing. However, Chu and Jackler do not explore the social circumstances of the development of the artificial tympanum, particularly how it embodied the transformation of deaf culture in Victorian England. The artificial tympanum, as this Chapter will show, was more than aural surgery’s ability to provide a “cure”—it was a transformation of expectations about surgical expertise, language and communication, and jurisdictional control over the deaf population. Or, to borrow Owen Wrigley’s phrasing, the expectations were less about audiology than they were about epistemology.²⁰

In *The Audible Past: Cultural Origins of Sound Reproduction*, Jonathan Sterne historicizes late nineteenth/early twentieth century sound reproduction technologies upon what he refers to as the “tympanic function.”²¹ Anchoring his analysis at the intersection of aural surgery, physiological studies of hearing, the pedagogy of the deaf, and modern studies of acoustics, Sterne charts how the mechanics of the middle ear—the tympanic membrane and the tympanum bone—provided a framework for theories of hearing and sound transduction. The increased attention on the physiology of the ear in the nineteenth century concentrated on the tympanum as a site of knowledge, which was then adapted as operational principles of sound reproduction technologies (and their eventual transformation into media) such as Leon Scott’s (1817-1879)

¹⁹ Eugene A. Chu and Robert K. Jackler, “The Artificial Tympanic Membrane (1840-1910): From Brilliant Innovation to Quack Device,” *Otology and Neurotology* 24 (2003): 507-518.

²⁰ Owen Wrigley, *The Politics of Deafness* (Washington, D.C.: Gallaudet University Press, 1997).

²¹ Jonathan Sterne, *The Audible Past: Cultural Origins of Sound Production* (Durham & London: Duke University Press, 2003).

phonoautograph, and Alexander Graham Bell (1847-1922) and Clarence Blake's (1843-1919) phonograph (which consisted of an excised human ear). Although Sterne acknowledges the problematization of the ear as a distinct object of study, he makes no mention of the attempts of aurists to construct technological devices based upon their own surgical theories of sound conduction—even Toynbee, whose “optimism” in his field is briefly mentioned.²² The mechanism of hearing and sound resonance, however, can be traced to Yearsley and Toynbee's respective developments of the artificial tympanum, which embodied their operative surgical principles as well as their knowledge about the anatomy, and pathology of the ear.

A close examination of articles in medical periodicals suggests that the dispute between Yearsley and Toynbee was rooted in defending and advocating a particular form of expertise as superior. These disagreements, particularly on sound resonance and the anatomy of the tympanic membrane raise important questions about the nature of surgical expertise in the construction of technologies. Historians of technology have discussed how technologies incorporate social, medical, political, and economical domains in explaining the construction and adaptation of prosthetics, frequently concentrating on the use of particular materials fused with specific design solutions.²³ As Katherine Ott argues, the design of technologies of the body and the ways in which these technologies are used are intertwined with the subjective and practical needs of its users. Certainly the artificial tympanum fits with Ott's claim that “[i]t is the material stuff that most

²² Sterne, *The Audible Past*, 55.

²³ Wiebe E. Bijker, Thomas P. Hughes, and Trevor Pinch (Eds.), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge: MIT Press, 1987); John V. Pickstone (ed.), *Medical Innovations in Historical Perspective* (New York: St. Martin's Press, 1992); Carsten Timmermann and Julie Anderson (eds), *Devices and Designs: Medical Technologies in Historical Perspective* (New York: Palgrave MacMillian, 2006). On technology and expertise: Christelle Rabier, *Fields of Expertise: A Comparative History of Expert Procedures in Paris and London, 1600 to Present* (Newcastle-upon-Tyne: Cambridge Scholars Publishing, 2007).

clearly conveys ideologies of body ideals, authority, culture.”²⁴ Alex Faulkner also outlines how different types of materials and designs for the hip joint of the artificial hip frequently changed with innovations in surgery, improved performance requirements, and improved profitability.²⁵ He adds that innovations in materials and design need to be understood in “the contexts of a commercial environment as well as one in which medical practitioners and patients seek technologies to alleviate pain and improve functioning.”²⁶

The use of materials incorporated into the design of surgical technologies can reveal much insight into how surgical theories were technologically embodied.²⁷ Ursula Klein and E.C. Spary, for instance, reconfigure the importance of materials used in the building of technologies and the practice of crafts, claiming that materials are well-suited as protagonists in historical narratives.²⁸ Certainly the use of materials can be rooted by political and economic factors—trade embargos, colonialism, costs, labor—and the use of precise materials were never wilfully chosen. On what grounds, for instance, would an instrument-maker decide to build forceps out of nickel rather than iron or copper? Availability and costs were such factors, as were fashion and prestige, but so were theoretical principles upon which functionality was based: a nickel-silver alloy was less likely to

²⁴ Katherine Ott, “The Sum of its Parts: An Introduction to Modern Histories of Prosthetics,” in Katherine Ott, David Serlin, and Stephen Mihm (eds), *Artificial Parts, Practical Lives: Modern Histories of Prosthetics* (New York & London: New York University Press, 2002). 1-42; 5.

²⁵ Alex Faulkner, “Casing the Joint: The Material Development of Artificial Hips,” in Katherine Ott, David Serlin, and Stephen Mihm (eds), *Artificial Parts, Practical Lives: Modern Histories of Prosthetics* (New York & London: New York University Press, 2002), 199-206.

²⁶ Faulkner, “Casing the Joint,” 199.

²⁷ Ghislaine Lawrence, “Design Solutions for Medical Technology: Charles Drew’s Profound Hypothermia Apparatus for Cardiac Surgery,” in Robert Bud, Bernard Finn, and Helmut Trischler (eds), *Manifesting Medicine: Bodies and Machines* (Amsterdam: Harwood, 1999): 63-77.

²⁸ Ursula Klein and E.C. Spary (eds), *Materials and Expertise in Early Modern Europe* (Chicago & London: The University of Chicago Press, 2012). As Klein and Spary explain, the use of particular materials were often used to produce new natural knowledge, new social benefit, and commercial profit at the same time (10).

rust and was much lighter to use than iron, necessary for delicate surgical work.²⁹ Certainly this was the case for Toynbee's artificial tympanum, as he explained the flexibility of gutta percha or vulcanized India rubber was best able to reproduce the strength and function of the natural membrane. Every choice towards the decision of a material clearly had a resource context, as David Pantalony has argued. In acoustical instruments and devices, in particular, many instrument makers adopted materials from colonial origins—rubber, ivory, mahogany—that were maintained by the boundaries of the market and could embody a more progressive, advanced, or scientific technology.³⁰

This Chapter also draws upon histories of material culture and the emerging scholarship on hearing aid technologies to evaluate the broader reception of the artificial tympanum as a prosthetic device. As Graeme Gooday and Karen Sayer elucidate, hearing aids have long been placed in the nexus between Deaf history and the field of sound studies, offering little interpretation to how they benefited users outside of a hearing-worldview.³¹ Analytical approaches to hearing aids have looked at them as objects of stigmatization and/or empowerment, as in the case of the Becker Medical Library's *Deafness in Disguise* exhibit,³² or as

²⁹ John Kirkup, *The Evolution of Surgical Instruments: An Illustrated History from Ancient Times to the Twentieth Century* (Novato, California: historyofscience.com, 2006); James M. Edmonson, *American Surgical Instruments: An Illustrated History of their Manufacture and A Directory of Instrument Makers to 1900* (San Francisco: Norman Publishing, 1997).

³⁰ David Pantalony, *Altered Sensations: Rudolph Koenig's Acoustical Workshop in Nineteenth-Century Paris* (London & New York: Springer, 2009).

³¹ Graeme Gooday and Karen Sayer, "The Disappearing Hearing Aid: Spatiality in the History of the Management of Hearing Loss," presentation, Warwick Seminar on the History of Medicine. University of Warwick, May 2011. See also: Jonathan Sterne (ed.) *Sound Studies Reader* (New York: Routledge, 2012).

³² *Deafness in Disguise: Concealed Hearing Devices of the 19th and 20th Century* Online Exhibit by the Bernard Becker Medical Library, Washington University School of Medicine. <http://beckerexhibits.wustl.edu/did/index.htm>

stepping-stones towards communication technologies, as with the work of Jonathan Sterne and Mara Mills.³³ Katherine Ott also adds that hearing aids can illustrate technological shifts between their practical application and ideals of surgery, for they relied upon newer theories reflecting the mechanical work of outer ear and tympanum. The popularity of certain surgical procedures could also spur new designs and marketing of artificial devices, such as how the popularity of enucleation brought demands for “good fit” for artificial eyes.³⁴

In the broader context of Victorian emphasis on self-presentation, the artificial tympanum also sheds light on how the notion of concealing a defect rationalized the designs of hearing devices, including artificial inserts, invisibles, or tympanums for the ear.³⁵ As Mara Mills and the work of Cathy Sarli and her team have shown, the nineteenth-century designs of hearing aids were marketed beyond portability and wearability. Far from the bulky and large ear trumpets that reinforced a paradox—visible devices for invisible impairments—the rhetoric of invisibility reinforced a stigma of deafness by making the impairment something that could be concealed. In

See also: A. W. Webster, “Webster’s Otaphone, a Patented Hearing Aid,” *Nineteenth-Century Disability: A Digital Reader* <http://www.nineteenthcenturydisability.org/items/show/30> and “Ear Trumpet in Mourning,” *Nineteenth-Century Disability: A Digital Reader* <http://www.nineteenthcenturydisability.org/items/show/26>

³³ Jonathan Sterne, *The Audible Past*; Mara Mills, “The Dead Room: Deafness and Communication Engineering,” PhD Dissertation, Harvard University 2008); Mara Mills, “When Mobile Communication Technologies Were New,” *Endeavour* 33 (2009): 140-146; Mara Mills, “Hearing Aids and the History of Electronics Miniaturization,” *IEEE Annals of the History of Computing* 11 (2011): 24-44.

³⁴ Katherine Ott, “Hard Wear and Soft Tissue: Craft and Commerce in Artificial Eyes,” in Katherine Ott, David Serlin, and Stephen Mihm (eds), *Artificial Parts, Practical Lives: Modern Histories of Prosthetics* (New York & London: New York University Press, 2002), 147-170; Neil Handley, “Artificial Eyes and the Artificialization of the Human Face,” in Carsten Timmermann and Julie Anderson (eds), *Devices and Designs: Medical Technologies in Historical Perspective* (New York: Palgrave MacMillian, 2006), 97-111.

³⁵ Though worn on the person as a technological replacement for a body part, the artificial tympanum has not been discussed in histories of prosthetic technologies. It could be argued that the artificial tympanum is not as empowering to an individual as an artificial leg might be, nor served to normalize a feature as an artificial eye might. Except for hearing loss, which may only be evident from interaction with a deaf person, it is difficult to clearly indicate who a deaf person is.

some instances, concealment was given priority over acoustic function, particularly as some adverts in trade catalogues emphasized it was the “duty” of the deaf to lessen the burden on their hearing counterparts by wearing technologies to better manage their self-presentation.³⁶ The artificial tympanum was certainly rooted in the “machine culture” or “prosthetic culture,” as David Yuan asserts, that became dominant in Victorian Britain for discussing the “problem of the body,” particularly the “defective body.”³⁷ Prosthetics could disguise debilitating social ills that were marked upon the body, reinforcing a “measure of concealment” through technology that made the user appear “normal” to polite society. Self-image and self-esteem was also sold alongside with prosthetics, with the promise of transformation through a technology expressing “dual strategies of emphasis and elusion.”³⁸ For instance, artificial limbs, as Vanessa Warne tells us, despite being marketed as luxury goods, were never regarded as such, for the stigma of disability counteracted any aestheticization and idealization embedded in the limbs and their use.³⁹ Maquard Smith adds that according to patient testimonies on prosthetic legs, the success or failure of the artifact depended accordingly to the gauge between invisibility and visibility; success, in many instances,

³⁶ Cathy C. Sarli, Rosalie M. Uchanski, Arnold Heidbreder, Kimberly Readmond and Brent Spehar, “19th-Century Camouflaged Mechanical Hearing Devices,” *Otology & Neurotology* 24.4 (2003): 691-8.

³⁷ David D. Yuan, “Disfigurement and Reconstruction in Oliver Wendell Holmes’s “The Human Wheel, its Spokes and Felloes,”” in David T. Mitchell and Sharon L. Synder (Eds.), *The Body and Physical Difference: Discourses of Disability* (Ann Arbor: University of Michigan Press, 1997), 71-88; Mark Seltzer, *Bodies and Machines* (New York: Routledge, 1992). The term “prosthetic” moved beyond its original grammar meaning in the nineteenth century to define something that is added to the body, to make it whole. Scholars have used “prostheses” frequently as a synonym for forms of machine-body interface, especially in discussions of Donna Haraway’s cyborg, or as a metaphor for mediating between human relations. For a critique on the scholarly (over)use of “prosthetics” as a metaphorical discourse, see: Sarah S. Jain, “The Prosthetic Imagination: Enabling and Disabling the Prothesis Trope,” *Science, Technology, & Human Values* 24 (1999): 31-54.

³⁸ Edward Slavishak, “Artificial Limbs and Industrial Workers’ Bodies in turn-of-the Century Pittsburgh,” *Journal of Social History* 37.2 (2003): 365-388; 371.

³⁹ Vanessa Warne, ““To Invest a Cripple with Peculiar Interest:” Artificial Legs and Upper Class Amputees at Mid-Century,” *Victorian Review* 35.2 (2009): 83-100. See also: Reed Benhamou, “The Artificial Limb in Preindustrial France,” *Technology and Culture* 35 (1994): 835-845.

was defined in terms of *not* being able to see the technology or its consequences.⁴⁰ Discourse of prosthetics and notions of invisibility and visibility, success and failure, deceit and display, were all factored in the construction and popularity of the artificial tympanum.

This Chapter thus sets the development of the artificial tympanum within aurists' quest for professional legitimacy through the rhetoric of "medical science," arguing how representations of the device propagated a technologically-focused audiological view of deafness in order to eradicate the "popular prejudice." Since the issue of credibility overarched aurists' legitimacy as a specialty, the defense of theoretical claims through materials could arguably be viewed as an attempt to not only prevent piracy, but also to preserve the integrity of the device's curability—to avoid another backlash against aural surgery as the Hall inquest did. Although the Yearsley-Toynbee exchanges did not alleviate the controversial nature of aural surgery, the situation did not invoke similar repercussions for the aurists' credibility as the debate between Curtis and Toynbee (Chapter Four), nor engage a flurry of commentators (Chapter Three). In fact, if other practitioners did participate in the conversation between Yearsley and Toynbee, they often did so with a disclaimer stating they had no intention to interfere and even apologized for their intrusion.

FROM GENERAL PRACTITIONER TO SPECIALIST

In his gossipy autobiographical recollections of medical practitioners, James Fernandez Clarke (c.1812-1875), medical journalist and Thomas Wakley's "lieutenant," remarked that with

⁴⁰ Marquard Smith, "The Vulnerable Articulate: James Gillingham, Aimee Mullins, and Matthew Barney," in Marquard Smith and Joanne Morra (Eds), *The Prosthetic Impulse: From a Posthuman Present to a Biocultural Future* (Cambridge & London: The MIT Press, 2006), 43-72.

John Harrison Curtis' fall from grace, space was available for other aurists to "compete for honours" as top billing practitioners.⁴¹ Clarke listed William Harvey (1805/6-1876/9), James Yearsley, and Joseph Toynbee as likely candidates, though he argued Toynbee was more of an anatomist than an aurist. Harvey had a steady career as a surgeon, having been educated at Guy's Hospital and practicing general surgery for a few years before establishing himself as a specialist and publishing *The Ear in Health and Disease* in 1854.⁴² In addition to his post at the Royal Dispensary for Diseases of the Ear, he was also aural surgeon to the Freemason's Asylum for Female Children and the Great Northern Hospital. As Clarke described, Harvey was quite the "practical" man who devoted himself wholeheartedly to his observations and treatments of deafness rather than engaging with public defenses of aural surgery, though he was bestowed the arduous task of removing the "ugly faces" of the Royal Dispensary (see Chapter Two)—thus, Harvey had no desire to publicly take the new stage of aural surgery.⁴³

⁴¹ J.F. Clarke, *Autobiographical Recollections of the Medical Profession* (London: John Churchill, 1874), 375. Clarke worked as a medical journalist for over forty years, first assisting and editing *The London Medical and Surgical Journal* from 1828 to 1837, then writing for Wakley's *The Lancet* until his dismissal in 1864 (the reasons for the dismissal are not clear), when he then went to contribute to *The Medical Times and Gazette*. At the latter position, his serialized "Autobiographical Recollections of the Medical Profession" was entertaining and popular, revealing the behaviours of many anatomists and "low-tier" medical practitioners of his time. The serial was published in book form in 1874.

⁴² Harvey's other publications on aural surgery include: *New and Improved Synoptical Table on the Diseases of the Human Ear*, with Thomas Buchanan (London: 1848); *Excision of the Enlarged Tonsil and its Consequences in Cases of Deafness* (London: 1850); *Rheumatism, Gout, and Neuralgia Affecting the Head and Ear in Connexion with Deafness* (London: 1852).

⁴³ Harvey is rather immortalized in history for his creation of a low-carbohydrate diet for William Banting (1797-1878), undertaker at St. James, who sought Harvey's advice for temporary deafness. Asserting that Banting's deafness was a symptom of his obese stature, Harvey created a diet based upon French theories of diabetes management. The advice improved Banting's health to such a remarkable extent that he self-published *Letter on Corpulence, Addressed to the Public* (1863), which became popular in later editions and even forms the basis of modern diets. In 1872, Harvey published his own account of the diet in *On Corpulence in Relation to Disease*.

Yearsley, on the other hand, was well suited for star billing. According to Clarke, Yearsley was a “shrewd” man, “original in his views, bold in the expression of his opinions, and chivalric in the defence of his claims to be regarded as an inventor.”⁴⁴ He maintained a prominent public profile, especially in his defense of Eustachian tube catheterization following the Joseph Hall inquest. For much of the 1840s, Yearlsey argued the study and practice of aural surgery should no longer “be conducted in the same superficial manner” as it was in the years past. Rather, he urged for a “true knowledge of the morbid conditions of the organ; and with this advantage, we may be said to half [sic] cured the disease.”⁴⁵ He added that while it was lamentable that a “legitimate branch of medical science” was left to “unqualified practitioners,” the newer “modes of practice” and aurists possessing a “competent knowledge of the subject” made it possible to eradicate the taint of quackery and acquire a degree of confidence from the broader medical community.⁴⁶

Born in Cheltenham, Gloucestershire, to Moses (b.1776) and Jane (d.1848), James Yearsley did not initially embark a medical career towards a specialty in aural surgery. At seventeen years of age, likely after finishing his primary studies, Yearsley became an apprentice to Ralph Fletcher, a well-known and skilled surgeon in Gloucester; he would later marry one of Fletcher’s daughters, Hanna Eliza (d.1879), who bore him three children. In 1824, he enrolled into St. Bartholomew’s Hospital in London, receiving his diploma of membership to the Royal College of Surgeons and a licentiate of the Society of Apothecaries in 1827.⁴⁷ Late in his career, possibly owing to changes to medical qualifications following the Medical Act of 1858 (21 & 22 Vict., c.90), he obtained two further qualifications: a licentiateship from the Royal College of Physicians, Edinburgh in 1860,

⁴⁴ Clarke *Autobiographical Recollections*, 376.

⁴⁵ James Yearsley, *Deafness Practically Illustrated: Being an exposition of original views as to the causes and treatments of diseases of the ear* (London: John Churchill, 1841), 180.

⁴⁶ Yearsley, *Deafness Practically Illustrated*, 180.

⁴⁷ Neil Weir, “Yearsley, James (1805-1869),” *Oxford Dictionary of National Biography*.

and a MD from St. Andrews University in 1862—a few years before he succumbed to liver cancer.⁴⁸ Upon leaving St. Bartholomew's and practicing for a short period in Cheltenham, Yearsley established himself as a general practitioner at Ross, Herefordshire, in 1829. During the 1830s, Yearsley apparently left for Paris to study diseases of the ear after finding himself dissatisfied with general practice. It's not clear why Yearsley chose to specialize in aural surgery, or who he worked with, as English historical records are limited, nor does Yearsley provide an autobiographical reflection of his career.

In 1837, Yearsley returned to London, settling at 15 Savile Row, where he opened his practice. A short walk away, on 32 Sackville St., he founded the Institution for Curing Diseases of the Ear, which would be renamed the Metropolitan Ear Institute and later the Metropolitan Ear, Nose, and Throat Hospital, moving to Fitzroy Square in 1911.⁴⁹ The 1839 Report of the Institution states that Yearsley's fundamental goal was to reform the "neglected state of aural surgery in this country" and provide a school for specialists interested in diseases of the ear.⁵⁰ The governors at

⁴⁸ On the Medical Act, see M.J.D. Roberts, "The Politics of Professionalization: MPs, Medical Men, and the 1858 Medical Act," *Medical History* 53 (2009): 37-56. The Act gave statutory recognition for the first time to a distinct, "legally qualified" category of general practitioners. However, as Roberts points out, while the Act constructed a community status to defend against medical "outsiders," it did not meet the needs of many reformers, who expressed their disappointment that the Act did not criminalize quackery.

⁴⁹ The hospital was the first in London providing specialty treatment in ENT diseases. According to the London Metropolitan Archives, the hospital remained at its location on Fitzroy Square until the Second World War, when it was severely damaged by bombing. The hospital personnel and patients evacuated to Watford but retained a small clinic in London for outpatients and emergencies during the course of the war. After the war, in 1949, the hospital relocated to 5. Collingham Gardens, Earls Court, then transferred to Saint Mary Abbot's Hospital in 1953. In 1985, the hospital merged as the Ear, Nose, and Throat Department of the newly-built Charing Cross Hospital. Unfortunately, the London Metropolitan Archives do not have any records of the hospital prior to 1875, so it's difficult to ascertain what Yearsley's position or experiences at the hospital were like.

⁵⁰ James Yearsley, *Deafness Successfully Treated through the passages leading from throat to ear; as satisfactory shewn in a Report of the Medical Proceedings of the Institution for Curing Diseases of the Ear*, 3rd Edition (London: Nisbet & Co., 1841), x.



Image 19: Photograph of James Yearsley by William Elliott Debenham, 1860s. National Portrait Gallery UK, NPG Ax38180.

the first half-yearly meeting agreed with Yearsley's goals. A Dr. Sigmund, for instance, remarked that the institution was best "calculated to assist in dispelling the obscurity in which the subject of aural surgery is enveloped."⁵¹ No mention is made of Curtis' Royal Dispensary, which outlined the same goals for institutional practice, although Yearsley does write that British practitioners in aural surgery were still "blundering on" with ineffective remedial measures, instead of devoting their energies to improving diagnosis and treatment.⁵²

In the Institution's founding year, 305 patients were admitted, of which 105 were cured, 41 improved; there were 54 incurable cases, of which 31 were at least treated the remaining 51 cases were not known, and 23 were still admitted on the books at the time of the meeting for the Institution.⁵³ The Committee applauded not only Yearsley's surgical skills, but also his conduct as a surgeon: "That he attempted no secrecy...but stated his plan of action with openness and candor. He told them what he could do, and do with safety and success, and did not set out like persons who were regarded as quacks by pretending to do too much."⁵⁴ The 1839 Report also highlighted the importance of credibility of an aurist's competence in regards to patient care; as Yearsley explained, patient procrastination in seeking assistance was often rooted in the "existing prejudice" against aural surgery's effectiveness. He added: "[i]ndeed, many patients, with long-standing deafness, have thus replied to my censure for not earlier seeking assistance:—"Sir, I

⁵¹ Yearsley, *Deafness Successfully Treated*, xi; *The Times* (17 August 1839), 3.

⁵² Yearsley, *Deafness Successfully Treated*, 5-6.

⁵³ *The Times* Saturday 17 August 1839.

⁵⁴ *The Times* Saturday 17 August 1839.

should have done so; but I was afraid of being made worse.”⁵⁵ His subsequent publications are a testament to the need for dismissing this prejudice.⁵⁶

To dignify the field and preserve public trust—and, consequently, encourage more patients to seek out assistance in early stages of their afflictions—Yearsley used his publications to urge his brethren to conduct a more thorough practice of aural surgery. His works focused on the relationship between the throat and ear, arguing that an understanding of the connection between the two organs was pivotal for the aurists’ diagnostic skills. In *On Throat Deafness*, he asserted that the relationship between the two organs resides from three natural divisions: the mechanical relation which allows for free circulation of air through the Eustachian tube and the tympanum; the contiguity and continuity of structure through the mucous membrane; and the sympathetic connection between the nerves of the throat and the auditory organ.⁵⁷ The divisions between the organs forces the aurist to diagnose and treat deafness by undertaking a close examination of the Eustachian tube, which Yearsley suggested was central to not only atmospheric pressure but for maintaining the communication between throat and ear. For instance, it is common that the “patient, whilst yawning, sneezing, blowing the nose, or it may be vomiting, feels a sudden click or

⁵⁵ Yearsley, *Deafness Successfully Treated*, 5.

⁵⁶ For instance, in *Deafness Practically Illustrated* (1847), a compilation of Yearsley’s essays printed in the *Medical Gazette* and *Contributions to Aural Surgery*, he writes the success of the quack aurist resides from the public being unacquainted with the principles of hearing and the structure of the ear: “How are the public to judge of the rationality and probable truth of [the quack aurist’s] assertions?...They are conscious of little else than suffering, and the desire of relief; they look around for the remedy; and the most confident and unlimited assurances of cure, however preposterous, are eagerly believed, their reasoning powers being crippled by the preponderating instinct of self-preservation.” James Yearsley, *Deafness Practically Illustrated, being an exposition of Original views as to the Causes and Treatments of Diseases of the Ear* (London: John Churchill, 1847), 5.

⁵⁷ James Yearsley, *On Throat Deafness and the Pathological Connexions of the Throat, Nose, and Ear* (London: John Churchill, 1852).

“pop,” and is instantly relieved of the deafness, and of every other unpleasant sensation.”⁵⁸ This undeniable relationship between the two organs, Yearsley argued, was reason enough why emetics were ineffective in numerous cases. Only a catheter was sufficient for removing the deafness, for it was able to treat the throat and nose whilst reaching the ear: “We have not, and never can have, anything like an equivalent for catheterism in simple obstruction of the Eustachian tube.”⁵⁹

Yearsley appears to have approached aural surgery differently than his British counterparts. While aurists like John Harrison Curtis, William Wright, or Thomas Buchanan concentrated on improving hearing through close inspections of the ear and its structures, Yearsley supported studying the ear in conjunction with the nose and throat. Arguing that the mucous membranes of the nose and throat often induce blockages in the Eustachian tubes, he explained the connection between the Eustachian tube and the auditory canals mean that blockages could drastically affect hearing. To be able to diagnose properly and apply effective treatment, the aurist needed to include other aspects of facial anatomy in his examinations. For this reason, Yearsley was a staunch supporter and advocate of Eustachian tube catheterization, insisting that it is “the only certain method of ascertaining the cause of deafness, when such cause is not to be found in the external auditory passage[s].”⁶⁰ As shown in Chapter Three, Yearsley defended the principles of Eustachian tube catheterization following an intense backlash against the procedure, even insisting that the catheterization was capable of revolutionizing aural surgery if it was prevented from abuse by quack aurists. Nine-tenths of his cases involved a close

⁵⁸ Yearsley, *On Throat Deafness*, 4.

⁵⁹ Yearsley, *On Throat Deafness*, 5.

⁶⁰ Yearsley, *Deafness Successfully Treated*, 15.

relationship between the nose, throat, and ear, leading Yearsley to state he could cure both middle ear and nervous deafness, a feat previously limited only to a handful of cases.

Yearsley's work indicated the tonsils often produce obstructions that led to deafness. As he explained, the "tonsils are placed in the vicinity of the Eustachian canals, and when considerably enlarged...they press on the mouths of the tubes as to cause obstruction or occlusion."⁶¹ Since the tonsils were not closely inspected during throat examination, inflammation and enlargement often go undetected, the consequence of which a patient continues to suffer from an undiagnosed affliction. To remedy this, Yearsley argued excision of the tonsils was the only solution for treating deafness arising from the throat.⁶² His stance on the extirpation of enlarged tonsils was an expansion of his earlier work on stammering in which he claimed stammering could be cured with tonsillectomy.⁶³ His claims attracted widespread attention from the medical community and the public as the rooms of the house on Sackville Street were packed with stammers anxious to undergo the operation that might cure them.⁶⁴ Over several months in 1841, Yearsley operated on over forty stammerers, who were overjoyed with their near instantaneous cure. Many medical practitioners were impressed, though some aspects of Yearsley's work were criticized for their ill-advised approach to the affliction and for advocating an unnecessary surgical procedure.⁶⁵

⁶¹ Yearsley, *On Throat Deafness*, 5.

⁶² William Harvey also tested out the removal of tonsils as a means for relieving deafness, though he discovered that the abundance of mucus membrane in the throat was bothersome for many patients. Clarke, *Autobiographical Recollections*, 375.

⁶³ He imagined stammers were often short of breath because swollen tonsils and uvula blocked their throat James Yearsley, *Stammering and other imperfections of speech: treated by surgical operations on the throat* (London: John Churchill, 1841); James Yearsley, *On the Cure of Stammering and other Imperfections of Speech* (London: John Churchill, 1841). See also: Benson Bobrick, *Knotted Tongues: Stuttering in History and the Quest for a Cure* (New York: Simon & Schuster, 1995), 97.

⁶⁴ Clarke, *Autobiographical Recollections of the Medical Profession*, 373.

⁶⁵ James Wright, for instance, who suffered from stammering, wrote a pamphlet urging the medical community to condemn Yearsley's publications. Others declared Yearlsey's procedure as mutilation; the

The success of the Institution for Curing Diseases of the Ear certainly earned Yearsley a reputation as a skilful practitioner with a steady stream of patients who appeared to trust him and were appreciative of his talents.⁶⁶ The geologist J. Weaver, for instance paid Yearsley five pounds as a “source of acknowledgement of [his] scientific skills & kind attention inserted in [his] case.”⁶⁷ Yearsley’s success also put him in the spotlight for severe criticism, which led to intense and somewhat furious debates with other medical practitioners, evidence of a personality Clarke

Lancet, for instance, publicly condemned the procedure as barbarous. Yearsley released a pamphlet in response to the *Lancet* remarks: James Yearsley, *Statement of facts relative to some new operations lately proposed for the relief of stammering: in refutation of false and interested counter-statements recently published in the "Lancet"* (London, n.p., 1841). In addition, he defended himself by stating: “I shall prove I have neither necessarily maimed my patients, misrepresented facts, nor deluded myself. For the present I must content myself with affirming, that I have cured many cases of stammering by surgical means alone, and shall continue to do so when associated with disorganization of the throat.” James Yearsley, “Operations for Stammering,” *The Lancet* 36 (24 July 1841): 638. Perhaps having had enough of the criticisms and ridicule against his theories, Yearsley published *A Treatise on Enlarged Tonsils* in 1842, arguing that tonsillectomy was only beneficial in cases of deafness arising from Eustachian tube obstructions; he later refined his views in *On Throat Deafness* in 1852. See: James Wright, *The Stutterer's Friend; or the plea of humanity and common sense against two publications*, 2nd Edition (London: Sherwood, Gilbert & Piper, 1843). A great overview on Yearsley’s views on stammering and the various perspectives on his procedures is outlined in Denise Rockley, *Speech Disorder in Nineteenth-Century Britain: The History of Stuttering* (London: Croom-Helm, 1980).

⁶⁶ So widespread was his reputation that in 1848, he was notified by a Charles Robert Larkin, surgeon in Newcastle-on-Tyne, that a quack by the name of Lewis was going around Newcastle adopting Yearsley’s identity in a bid to promote himself as a “curer of deafness. Upon exposing the quack, Larkin and the Mayor of Newcastle-on-Tyne and a few angry men and women drove “Lewis” out of town. Further, Larkin printed 300 large bills and placarded them around Newcastle; similar bills were sent to North and South Shields and eventually the imposter fled. Yearsley was notified of these events from Larkin’s letters and wrote to the Mayor whether any action was to be done to redress the situation, to which the Mayor replied: “We have no by-law to punish the party, and the only remedy you have is to indict him, and bring action for damages.” However, since the impostor had fled, Yearsley was unable to do so, though he did manage to salvage his reputation. “Expulsion of a Quack from Newcastle-on-Tyne,” *The Lancet* 52 (9 December 1848): 649.

⁶⁷ Letter from J. Weaver to James Yearsey, 12 July 1840. British Library Manuscripts MS.8007/77/1. Weaver also acknowledges the difficulty of his particular deafness, adding that “If we have not succeeded in our efforts, it had been neither your fault nor mine, but that of dame Nature, for I think we were neither of us deficient in the performance of your __ duties upon the occasion.”

described as “rash, often intemperate in language, and sometimes scurrilous.”⁶⁸ For instance, in a letter to Edmund Belfour (1789-1865), secretary of the Royal College of Surgeons, Yearsley implored Belfour to explain why his application for membership as a Fellow was rejected. Angry at discovering the announcement through the College’s newsletter “Medical News,” Yearsley wrote,

I beg to be informed therefore whether or not my name was proposed on that occasion, and whether you are aware upon what authority the most cruel and injurious statement has been made public, as I have always understood that the publishers information of the proceedings of the College is furnished by one of its own officers?⁶⁹

It is unclear what Belfour’s response was, but Yearsley certainly took the situation as a personal insult against his dignity. In another instance, Yearsley was outraged when the *Provincial Medical Journal* did not afford him the same justice as a Mr. Coulson, by fully printing his correspondence. The editors gave Yearsley his “strict justice,” with a note that he “of course, is at liberty to form his own opinions, but he must not quarrel with us if we differ from him, or if we assert that the whole voice of the profession is against him.”⁷⁰ Yearsley clearly did not heed their advice, for much of his career was spent ferociously defending himself against any attacks against his personal nature, his theories, or his practice.⁷¹

⁶⁸ Clarke, *Autobiographical Recollections*, 376.

⁶⁹ Letter from James Yearsley to Edmund Belfour, 22 April 1854. British Library Manuscripts MS.8007/77/2

⁷⁰ “Mr. Yearsley and the Dispatch,” *Provincial Medical Journal and Retrospect of the Medical Sciences* 7 (25 November 1843): 160-1.

⁷¹ For instance, he even wrote a letter to the *Lancet* clarifying that he was invited to read a paper before the Westminster Medical Society after a last-minute arrangement with the chairman of the society, and did not, as he was anonymously accused of doing, crash the meeting: “If the term *invitation* be objected to, I was certainly *asked* to read my paper by the chairman, with the concurrence of what I have been told was a full meeting of the society.” *The Lancet* 36 (12 June 1841): 413-4.

Yearsley may not have been popular with his brethren, for he was not one of the “high order” of the “elite of the Profession,” as Clarke explained.⁷² But he certainly was devoted to elevating the reputation of aural surgery by grounding it on “medical science.” Much of his contribution to establishing the legitimacy of his field came from acknowledging the differences between practitioners who were qualified and those that were not. In 1845, along with his brother-in-law Tyler Smith and Forbes Wilson, Yearsley founded the *Medical Directory*, which recorded a list of all recognized practitioners and their supplementary qualifications.⁷³ The *Directory* was an attempt to combine a (near-) complete list from the Colleges of Physicians and Surgeons, and the Apothecaries’ Company. Among the known aurists listed with their qualifications were: Yearsley (surgeon), Toynbee (consulting surgeon), William Wright (general practitioner), David Tod (general practitioner), William Harvey (surgeon), and George Pilcher (surgeon). Neil Weir notes that the *Directory* was an important step toward the Medical Registration Act of 1858. While this might be overstating the extent of the *Directory’s* influence, there’s no doubt that Yearsley, Smith, and Winslow were invigorated with the spirit of reform, a spirit that carried forth in Yearsley’s attempts to create a consensus for aural surgery.

⁷² Clarke, “James Yearsley,” 377.

⁷³ *The London Medical Directory, 1845* (London: C. Mitchell, Red Lion Court, 1845). The proprietorship of the *Directory* was kept secret from medical practitioners, at least initially, which raised pressing questions regarding the legitimacy of the work. Somehow it became known that Yearsley was involved. An anonymous surgeon, for instance, inquired in a letter to the *Lancet* whether it was true that Yearsley was proprietor of a work that “honours the homoeopathic quacks with so many titles and distinctions and of a trashy paper occasionally published gratuitously distributed amongst the profession?”—and if so, why were those facts concealed? The *Lancet* admitted to the identity of the proprietor, but denied any role in concealing or revealing such facts. *The Lancet* (October 1852): 386.

THE ANATOMIST: FROM HUNTERIAN MUSEUM TO ST. MARY'S HOSPITAL

Born on 30 December 1815 at Heckington, Lincolnshire, Joseph Toynbee was the fourth child of landowner and farmer George Toynbee from his first marriage.⁷⁴ A tutor taught the Toynbee boys at home, though later the same tutor recommended Joseph to be sent to school at King's Lynn grammar school. At sixteen years old, he was sent to London to apprentice to William Wade of the Westminster General Dispensary in Gerard Street, Soho.⁷⁵ Toynbee soon studied anatomy under George Derby Dermott at the Great Windmill Street school of medicine, and at St. George's and University College Hospitals, earning a reputation for his anatomical and dissection skills.⁷⁶ For a short while he even attended as assistant to Robert Bentley Todd (1809-1860), Professor of Physiology and Morbid Anatomy at King's College, London, who testified to Toynbee's "gentlemanly...conduct [and his] professional acquirements and...zeal in the pursuit of science."⁷⁷

In 1838, Toynbee was admitted as member of the Royal College of Surgeons and began working with Joseph Swan (1791-1874) on preparations for the Hunterian Museum collections, an appointment that was obtained after Toynbee wrote to the Chairman of the Board of Governors:

⁷⁴ From his first marriage, George Toynbee had seven children: George, Elizabeth (d.1885), William, Joseph, Henry, John, and Charles (d.1865). His first wife died in 1822. Eventually he remarried and had another seven children: Edward, Robert, Thomas, Jane, Samuel, Sarah, and Anne.

⁷⁵ There, he joined his eldest brother George, who was studying linguistics—supposedly George was a master of fourteen languages and aspired to become a librarian at the British Museum. Copy of the diary of George Toynbee, with notes by Gertrude Toynbee. George Toynbee Letters and Diary &c., Papers of Joseph Toynbee and George Toynbee Collection, Bodleian Library MS Eng.misc.d.1211.

⁷⁶ Neil Weir, "Toynbee, Joseph (1815-1866)," *Oxford Dictionary of National Biography* (Oxford University Press, 2004).

⁷⁷ Testimonial from B. Todd, 18 October 1837. Joseph Toynbee Testimonials 1835-1841, Royal College of Surgeons of England Archives and Manuscripts MS0400 ff.6.

Sir,

Having made myself acquainted with the nature of the duties which are required in the Museum of the College I beg to leave to state that I feel considered to perform those duties, and I therefore enclose testimonials of my competency to do so. I am aware of the time required are four hours a day, and of the extent of the remuneration—2 Guineas a week, to both of these I am quite agreeable. In conclusion, Sir, should you do me the favor of affording me no exertion of mine should be spared fulfilling the duties allotted to me.⁷⁸

The supporting testimonials were from Richard Cartridge, who testified to Toynbee's "dexterity...as a Dissector, and to his information as an Anatomist," and from Todd, who acknowledged that Toynbee had "numerous opportunities of making dissections in Human & Comparative Anatomy—natural & morbid" and was perfectly adequate for the duties of the position. Upon obtaining the appointment, Toynbee continued working on the preparations with Swan, eventually compiling forty-two preparations to be placed into the Museum.⁷⁹ He also began assisting Sir Richard Owen (1804-1892) who was then Conservator of the Museum.

From 1839 to 1842, Toynbee made tremendous strides in his career as a surgeon and anatomist. Perhaps inspired by his disagreements with John Harrison Curtis over the prevalence of cerumen as a cause of deafness (see Chapter Four), Toynbee became interested in the diseases of the ear as early as 1836, though he would not undertake a systematic study of the ear until the

⁷⁸ Letter from Joseph Toynbee to the Chairmen of the Royal College of Surgeons, 19 March 1838. Royal College of Surgeons of England Archives and Manuscripts. Acquisitions. Memo re Mr. Toynbee & Mr. Swan's Preparations c.1846-56 RCS-MUS/3/3/10.

⁷⁹ Letter from Joseph Toynbee to President Robert Keate, 8 October 1839 regarding Toynbee's offer to compile the Museum 376 series for the College, as persevered by Swan. Royal College of Surgeons of England Archives and Manuscripts. Acquisitions. Memo re Mr. Toynbee & Mr. Swan's Preparations c.1846-56 RCS-MUS/3/3/10. Toynbee's offer was accepted by Keate and the Council in November 1839. Letter from Edmund Belfour to Joseph Toynbee, 21 November 1839. Royal college of Surgeons of England Archives and Manuscripts. Royal College of Surgeons Letter Book, 1839-1866 RCS-GOV/2/6/3 page 1.



Image 20: Photograph of Joseph Toynbee by Maull & Co., c.1850s. Royal Society of London Collection IM/Maull/004637.

mid-1840s.⁸⁰ An 1841 letter to Richard Owen reveals that Toynbee actually concentrated his early career on diseases of the joints, and even requested Owen's assistance.⁸¹ His dissections on diseased joints led to a paper demonstrating that the articular cartilage of bones, the cornea, the crystalline lens, the vitreous humour, and the epidermal appendages contained no blood vessels—an astounding paper that secured his election as Fellow of the Royal Society in 1842, making him the youngest Fellow at twenty-six.⁸²

Toynbee also applied for a position as Surgeon to the St. George's and St. James's General Dispensary near the Golden Square workhouse in one of the poorest areas of London's West End.⁸³ The sixteen testimonials for his application shed light on Toynbee's remarkable aptitude as a dissector and a surgeon, as well as the degree to which he was respected as a young surgeon. Obstetrical surgeon Robert Lee (1793-1877) testified "there are very few individuals of the same age...equal to Mr. Joseph Toynbee, in ability, talents, and acquirements."⁸⁴ Joseph Swan highlighted Toynbee's "uniform good conduct and gentlemanly demeanor,"⁸⁵ while Caesar Henry Hawkins (1798-1884), surgeon at St. George's Hospital, noted Toynbee's "skill & attention will be of great

⁸⁰ Museum copy of Joseph Toynbee's *A Descriptive Catalogue of Preparations Illustrative of Diseases of the Ear* (London: John Churchill, 1837). Royal College of Surgeons of England Archives and Manuscripts RCS-MUS/7/10/1.

⁸¹ Letter from Joseph Toynbee to Sir Richard Owen, 8 June 1841. British Library Manuscripts, Letters to Sir Richard Owen Collection MS 39954 ff.23-24.

⁸² Toynbee's letter to Owen: "Dear Sir, I am now devoting myself to the study of Pathology and Surgery. I am writing a paper on the Diseases of Articular Cartilage, a subject nevertheless with interesting phenomena. I should feel much indebted if you could allow me to the opportunity of dissecting the diseased joints of any animals that die at the Zoological Gardens." Joseph Toynbee, "Researches, tending to prove the Non-vascularity and the peculiar uniform Mode of Organization and Nutrition of certain Animal Tissues," *Philosophical Transactions of the Royal Society of London* 131 (1841): 159-192.

⁸³ Ruth Richardson, *The Making of Mr. Gray's Anatomy: Bodies, Books, Fortune, Fame* (Oxford: Oxford University Press, 2008), 28.

⁸⁴ Joseph Toynbee Testimonials 1835-1841, Royal College of Surgeons of England Archives and Manuscripts MS0400 ff.7.

⁸⁵ Joseph Toynbee Testimonials 1835-1841, Royal College of Surgeons of England Archives and Manuscripts MS0400 ff.10.

advantage to the Institution.”⁸⁶ Robert Argyll, physician at St. George’s Hospital also noted that Toynbee would provide the “greatest advantage to the patients.”⁸⁷ Even Owen shared his acquaintance with Toynbee, and “his very superior attainments in Anatomy and Physiology, and with the zeal and indefatigable industry which he manifested in the acquisition of every branch of professional knowledge which an accomplished Surgeon should profess.”⁸⁸ Eventually obtaining the position, Toynbee moved out of his modest lodgings on 58 Firth Street to 12 Argyll Place in order to live closer to the Dispensary. He also applied for a position in the Office of Assistant Surgeon at North London Hospital, though he was unsuccessful in his endeavour.⁸⁹

Toynbee spent much of the 1840s and early 1850s advancing his skills as a surgeon and continuing his dissections and researches into aural pathology. He also made connections with other aurists and sought out newer technologies or techniques for practice.⁹⁰ For instance, he wrote to a Dr. A. Warden asking to see a speculum for the ear that Warden had previously spoken of to him.⁹¹ He also struck up a friendship with Michael Faraday (1791-1867), dining with him,

⁸⁶ Joseph Toynbee Testimonials 1835-1841, Royal College of Surgeons of England Archives and Manuscripts MS0400 ff.11.

⁸⁷ Joseph Toynbee Testimonials 1835-1841, Royal College of Surgeons of England Archives and Manuscripts MS0400 ff.12.

⁸⁸ Joseph Toynbee Testimonials 1835-1841, Royal College of Surgeons of England Archives and Manuscripts MS0400 ff.22.

⁸⁹ Letter from Joseph Toynbee to Sir Richard Owen, 1841. British Library Manuscripts, Letters to Sir Richard Owen Collection MS 39954 ff.25-26.

⁹⁰ In a letter to his brother William, Toynbee wrote: “I yesterday removed a cancer from a lady’s breast under the influence of ether & she thought all the time she was having a ride on horseback & the only thing unpleasant was that some boys betted her with stones.” Letter from Joseph Toynbee to William Toynbee 14 April 1847. Correspondence & Papers of Joseph Toynbee 1856-63. Bodleian Library Archives and Manuscripts MS.Eng.lett.e.210 ff.7.

⁹¹ Letter from Joseph Toynbee to Dr. A. Warden, 5 November 1844. London Metropolitan Archives Q/WIL/612.

discussing the boundaries of electricity and his own experiments;⁹² once, he even requested Faraday for tickets to attend Thomas Henry Huxley's (1825-1895) popular lectures.⁹³ In August 1846, Toynbee married Harriet Holmes (1822-1897), daughter of Nathaniel Holmes, and eventually had nine children.⁹⁴ He also undertook responsibility over several philanthropic

⁹² Letter from Joseph Toynbee to Annie Brown 27 April 1859, reprinted in Gertrude Toynbee (ed.), *Reminiscences and Letters of Joseph and Arnold Toynbee* (London: Henry J. Glaisher, 1900), 35.

⁹³ Letter 2469, Joseph Toynbee to Faraday 24 October 1851; Letter 2833 Joseph Toynbee to Faraday 16 May 1864, in Frank A.J.L. James, *The Correspondence of Michael Faraday Vol.4 (1849-1855)* (London: Institution of Electrical Engineers, 1996), 338; Letter 3122 Faraday to Joseph Toynbee 17 April 1856; Letter 3726 Joseph Toynbee to Faraday 10 February 1860, in Frank A.J.L. James, *The Correspondence of Michael Faraday Vol.5 (1855-1860)* (London: Institution of Engineering & Technology, 2008), 83.

⁹⁴ Gertrude (b.1848), William (b.1849), Lucy (b.1850), Arnold (1852-1883), Rachel (b.1853), Paget Jackson (1855-1932), Mary H. (b.1856), Grace Poleridge (b.1856), and Harry Valpy (b.1861). The Toynbee family can boast some remarkable achievements: Arnold Toynbee was the respectable economic historian who followed his father's footsteps in devoting his energies towards improving social welfare; Paget Jackson was a Dante scholar; Grace Coleridge worked as a bacteriologist and later married chemist Percy Faraday Frankland (1858-1946); and Harry's son, Arnold Joseph Toynbee (1889-1975) was the famous universal historian.

His letters to his children paint a picture of a man who was a devoted father, attentive to his children and expressive of his affection. Much of his remaining correspondence to his children, housed at the Bodleian Library—many of which were reprinted in Gertrude Toynbee's book—do not mention his work, though he often jots the occasional sentence that he was attending to a patient or headed to a different city for a conference [Letter from Joseph Toynbee to Gertrude Toynbee 6 March 1865. Correspondence & Papers of Joseph Toynbee 1864-66. Bodleian Library Archives and Manuscripts MS.Eng.lett.e.211.ff.144]. Several letters from August 1859 also reveal Toynbee's concern about the health of Mrs. Valpy, the children's governess. In one letter, he outlined specific instructions to Gertrude ("Geddy") to instruct Mrs. Valpy how to apply a small blister behind her ear to aid in her earache. The letter was adorned with a rough diagram of the blister as well [Letter from Joseph Toynbee to Gertrude Toynbee 11 August 1859. Correspondence & Papers of Joseph Toynbee 1856-63. Bodleian Library Archives and Manuscripts MS.Eng.lett.e.210.ff.62. Letter from Joseph Toynbee to Gertrude Toynbee 13 August 1859. Correspondence & Papers of Joseph Toynbee 1856-63. Bodleian Library Archives and Manuscripts MS.Eng.lett.e.210.ff.64]. He was just as attentive to his other patients. In one letter to Mrs. Flower, possibly the wife of anatomist and surgeon Sir William Flower (1831-1899), Toynbee wrote it was "delightful news to hear that you are better; how charming it would be if you could come out with the buds" [Letter from Joseph Toynbee to Mrs. Flower, 3 March 1865. British Library Manuscripts MS 7734/76]. In another, he advises a Mrs. Pearson to fill her new prescription for a preparation of iron, which she was to take ten drops in a wine glass of water twice or thrice daily. He also added: "If you do not feel better in a day or two, I think you should see some medical man near you. Do not apply anything to the ears, take a little wine or sponge with warm water before going to bed. Rest yourself in every way possible." Letter from Joseph Toynbee to Mrs. Pearson, 7 May 1862.

projects, beginning with the establishment of a Samaritan Fund at the St. James's and St. George's Dispensary and the promotion of a model lodging-house near the Dispensary.⁹⁵

While Toynbee kept himself busy with his appointment at the Dispensary, with his new family life and his philanthropic works, he also began shifting his career towards a specialty. He began concentrating his research more on dissection of the ears of deaf and dumb patients, anchoring his work to his investigations of the pathology of the ears. He published several articles in *Medico-Chirurgical Transactions* on his pathological researches, examining the bones of the ear, the auditory canal, the tympanum and the Eustachian tube and attempting to link diseased aspects with symptoms observed when the patient was alive.⁹⁶ His anatomical studies led him to conclude that the failure to study pathology was the primary reason for aural surgery's disrepute and the only rational approach for improving the field was through dissection. A letter to the editor of *The Provincial Medical and Surgical Journal* captures Toynbee's views on the importance of dissection, after he was granted permission from surgeon John Green Crosse (1790-1850) to investigate the ears of a 47-year old patient of Crosse's. "I feel confident that the only way of throwing light upon the nature of deafness, is to make extended researches into the various morbid changes which

Correspondence & Papers of Joseph Toynbee 1856-63. Bodleian Library Archives and Manuscripts Ms.Eng.lett.e.210.ff.136.

⁹⁵ As Gertrude Toynbee explained, these projects were typical of her father's character, since he "disliked the notion that the rich could only meet the poor when the latter were sick or in trouble & so wanted to help; he felt that Humanity has grounds of fellowship deeper than all clan distinctions" [Notebook compiled by Gertrude Toynbee. Papers of Joseph Toynbee and George Toynbee Collection, Bodleian Library Archives and Manuscripts MS.Eng.misc.e1328.]. This persona is further captured in Toynbee's letter to politician Robert Aglionby Slaney (1792-1862), in which Toynbee champions for better living conditions for the working classes and voices his opinions on improving the Public Health Bill. Letter from Joseph Toynbee to A. Slaney, MP 23 January 1846. Birmingham University Special Collections Eyton and Slaney Family Papers EYT/1/17.

⁹⁶ Joseph Toynbee, "Pathological Researches into the Diseases of the Ear," *Medico-Chirurgical Transactions* 24 (1841); 26 (1843); 32 (1849); 34 (1851); 38 (1855).

take place in the organ of hearing," Toynbee wrote.⁹⁷ In 1849, he sent a letter to Owen announcing a new focus for his dissection researches:

I am working very diligently on the subject of Ear Diseases and I see that the development of the temporal bone has very important relations to its pathology. I shall be much obliged if you can kindly get any specimens of temporal bones in my way, whether healthy or diseased.⁹⁸

He began tabulating statistics of his researches into the pathology of the ear, making additional dissections in cases in which he had knowledge of the case history.⁹⁹ In his 1853 report, for instance, Toynbee outlined 1523 dissections, divided as follows: 136 diseased ears from deaf persons with histories; 223 diseased ears from deaf persons without histories; 654 diseased ears from persons without histories; and 510 healthy ears. Many of these specimens were derived from the London Asylum of the Deaf and Dumb, the Asylum for Idiots at Earlswood, Surrey, and from various other donations and collections from his own patients or that of other aurists'.¹⁰⁰ Though the number of specimens from deaf persons whose cases Toynbee had seen and examined before death, or whose case histories were known, amounted to the smallest percentage of his total dissections, Toynbee emphasized they were the most valuable, for they "throw more light upon

⁹⁷ Joseph Toynbee, "Dissection of the Ears of a Deaf and Dumb Patient," *Provincial Medical and Surgical Journal* (1847), 126. Crosse only provided Toynbee with an opportunity to investigate the pathology of the ear, but also gave him detailed clinical information regarding the case.

⁹⁸ Letter from Joseph Toynbee to Sir Richard Owen 22 January 1849. British Library Manuscripts, Letters to Sir Richard Owen Collection MS 39954 ff.141.

⁹⁹ As Toynbee explains: "I determined at once to dissect every ear that I could obtain, in order to ascertain what are the most common morbid conditions to which the organ of hearing is subject; in fact, to secure one step first, by ascertaining something of the *morbid anatomy* of the ear, before advancing to a consideration of its *pathology*. The result of my investigations established this general fact, that the existence of some of the most important afflictions of the ear had not even been imagined." Joseph Toynbee, *The Diseases of the Ear: their Nature, Diagnosis, and Treatment* (London: John Churchill, 1860), 2.

¹⁰⁰ Weir, "Toynbee, Joseph."

the pathology of deafness than do the other classes of cases the histories which are unknown.”¹⁰¹

The youngest mentioned in the table is a girl of 11 months whose left ear was healthy but whose right ear had ulcerated and diseased bones.

In a fitting move with his new focus, Toynbee was nominated as the first Aural Surgeon and Lecturer on Diseases of the Ear at the newly established St. Mary’s Hospital in Paddington, in 1852, becoming the first aurist to hold a position in a general hospital. As E.A. Herman explains, the governors at St. Mary’s were adamant about filling the sixteen vacancies under strict criteria of appointment based on “general principles.” Selection was based upon preference of scientific credentials, teaching experience, and other liberal and reforming credentials.¹⁰² Toynbee joined a consulting staff consisting of three surgeons to in-patients, three physicians to in-patients; three junior surgeons and another three junior physicians attending to out-patients, and a specialist staff that included William White Cooper (1816-1886), ophthalmic surgeon, Isaac Baker Brown (1811-1873), surgeon accoucheur, and William Tyler Smith (1815-1873), physician accoucheur.¹⁰³ Within his position, Toynbee not only attended to various cases of deafness, but also continued his research on pathological anatomy of the ear, maintained statistics of his cases, and gave lectures on diseases of the ear in the outpatient clinic, some of which he published in *The Medical Times and Gazette*.¹⁰⁴ Toynbee also corresponded with Florence Nightingale (1820-1910),

¹⁰¹ Toynbee, “Pathological Researches,” 2.

¹⁰² In addition to his professional qualifications (Fellow of Royal College of Surgeons, Surgeon at St. George’s & St. James’ Dispensary), Toynbee helped found the *Provincial Medical and Surgical Association* (founded by Sir Charles Hastings (1794-1866) and later became the British Medical Association) along with Francis Sibson (1814-1876), another physician at St. Mary’s. E.A. Heaman, *St. Mary’s: The History of a London Teaching Hospital* (London: Liverpool University Press, 2003), 35-36.

¹⁰³ Heaman, *St. Mary’s*, 39.

¹⁰⁴ Other than his published works, there is little in the archives that sheds further light on Toynbee’s activities at St. Mary’s. The St. Mary’s Hospital archives only contain references to Toynbee’s election/appointment to the staff and his eventual resignation. St. Mary’s Hospital NHS Trust Archives.

who was elected as life governor at St. Mary's in 1856, over the health of his patients, particularly those afflicted with deafness.¹⁰⁵ He maintained his post at St. Mary's until 1864.

The same year, the London Asylum for the Deaf and Dumb announced Toynbee was appointed as the first Consulting Aural Surgeon to the institution.¹⁰⁶ This was a remarkable shift from the Asylum's long-standing stance against the role of medical and surgical practitioners—let alone experimentation—on the pupils at the school (see Chapter One) and sheds light on a significant transformation of the relationship between aurists and educators of the deaf. In announcing Toynbee's appointment, the *Provincial Medical and Surgical Journal* added, “[t]his is the first time that any surgeon has been appointed especially to examine the children in reference to their deaf-dumbness, and, we doubt not, that much good to the profession will result from this appointment.”¹⁰⁷ Due to the limitations of sources, it is not clear why the Asylum changed its stance regarding the role of aurists within the school, or why the institution chose Toynbee, though it's likely that his position at St. Mary's provided him with a cloak of respectability that was lacking in other British aurists. At the time, no other British aurist held a specialized position in a hospital setting as Lecturer. Toynbee's position at the Asylum certainly fits within the emerging oralist movement, which shaped a stronger role for medical practitioners in terms of curing deafness and advocating speech training,

¹⁰⁵ Lynn McDonald, (Ed.), *Florence Nightingale: Extended Nursing. Collected Works of Florence Nightingale* (Waterloo: Wilfrid Laurier University Press, 2009), 109. Discussing the deafness of one of his patients, Toynee writes: “Madam, In reply to your note I beg to say that Miss Agnes Jones suffered from debility of the nervous apparatus of each ear, which debility is likely to be increased by strain of mental or bodily work. Unless the relinquishment of her present duties would cause great mental discomfort to Miss Jones, it is better for them to be at once given upon. After rest and change of air Miss Jones might try the workhouse duties, but they must terminate if the deafness increases.” Letter from Joseph Toynbee to Florence Nightingale, 30 June 1864. British Library Manuscripts Collection MS4596 ff.246.

¹⁰⁶ *Medical Times and Gazette* (28 February 1852).

¹⁰⁷ *Provincial Medical and Surgical Journal* (1852): 129.

Though concentrating on dissection and the anatomy of the ear, Toynbee's clinical acumen also reflects a devoted physician, one who ensured all means were exhausted in treating his patients. He published a report of his examination of 411 children at the London Asylum, asserting that his close examinations revealed that many exist with "more or less the power of hearing." Out of the 411, 166 (40%) heard certain sounds, including clapping of the hands, a shot, loud voice, and some even distinguished vowels and repeated them, or short words, or short sentences.¹⁰⁸ These observations "naturally impressed [him] with the desirability of attempting to cultivate the hearing power in some patients, who really gave evidence that they possessed it to a limited extent; even though they might have been considered as deaf and dumb, and educated accordingly."¹⁰⁹ This is a crucial statement, for here Toynbee reflected similar assertions Curtis and Wright made twenty years earlier—that with minute observation, the "deaf and dumb" were indeed capable of being cured. However, he remarked that if no hearing power is observed in the child after a series of tests, the child has to be educated as a deaf-mute, for he or she will be beyond the reach of medical treatment.¹¹⁰ Additionally, like aurists of the past, Toynbee's reputation as a skilled aurist allowed him to cater to the Royal family; though, unlike Curtis, who

¹⁰⁸ Joseph Toynbee, *A Case of Deaf Dumbness, of more than twenty years' duration, in which the hearing and the articulation were greatly benefited* (London: John Churchill, 1858).

¹⁰⁹ Toynbee, *A Case of Deaf Dumbness*, 1-2.

¹¹⁰ Toynbee conducted several pathological investigations into the conditions of the ears of deaf and dumb children at the London Asylum. One of the most significant claims he makes is on how to examine a child supposedly deaf and dumb: "This great difference of opinion arises from the absence of any precise experiment from which accurate conclusions can be drawn. Thus it frequently happens that a child is reported not to be deaf, because it always starts or looks upon the door of the room being loudly knocked, or when the floor of the room over it is tapped with considerable force; when the fire-irons in the room are permitted to fall, or when the piano is played." However he points out that these loud sounds are actually "felt" by a person and a better test would be to have a child seated on the knee of a nurse or parent distracted by a toy while the adult makes various kinds of noises. Joseph Toynbee, *The Deaf and Dumb: Their Condition, Education, and Medical Treatment* (London: John Churchill, 1858), 18.

was viewed as a notorious social climber, Toynbee made no public declarations of his connections, discussing his position privately with his family.¹¹¹

With his growing prominence as an aural surgeon and his increasing salary, Toynbee settled his family on 18 Savile Row, just two doors down from Yearsley's residence. Like Yearsley, Toynbee rallied for respectability in aural surgery and emphasized the need for specialized focus in diagnosis and treatment. However, both aurists applied different forms of expertise that they believed would contribute to their field's claim for legitimacy: Yearsley's focus on clinical cases and trial-and-error defined how he constructed the artificial tympanum, whereas Toynbee's anatomical lens framed his thinking of the tympanic membrane and its treatment on a different level than his contemporary.

EMBODYING EXPERTISE IN TECHNOLOGICAL CONSTRUCTION

Chapter Four illustrated how aurists used their understandings of the physiology of the ear in designing and constructing instruments for practicing aural surgery. The design of an instrument and the selection and use of materials reveals the extent of an aurist's expertise and the ways in which surgical knowledge and experience are embodied in the technological

¹¹¹ "I am sure you will be gratified to hear that I had yesterday called in to see the Queen at Osborne on account of deafness & noises in the head which had in spite of all treatment so much increased to cause great discomfort. In half an hour I left Her Majesty perfectly cured. As you may imagine, the Queen was greatly pleased and sent Dr. Tenner to tell me that there was no occasion for my keeping her deafness & the consultation a secret now that she was cured. Whether it will send in an appointment of Aural surgeon to the Queen I cannot say but you see the great folk always said that the surgeons could manage the ears & a special officers was not required. This almost unheard of that one not holding any appointment at Court an outsider should be called in, but as all that had been done had made the Queen worse rather than better there was no help but to send for me." Letter from Joseph Toynbee to his parents, 18 July 1864. Papers & Letters of Joseph Toynbee, 1864-66. Bodleian Library Manuscripts and Archives Ms.Eng.Lett.e.211.ff.26. Also reprinted in Gertrude Toynbee, *Reminiscences and Letters*.

construction. With regards to the construction of the artificial tympanum, Yearsley and Toynbee applied different forms of expertise in the design of their devices. Their respective education and training, as outlined in the previous section, provided them with remarkably different perspectives for how to apply their theoretical claims on the device's design, claims that they ostentatiously defended in the course of their disagreements.

Yearsley's design emerged out of his clinical practice. In an 1848 article published in *The Lancet*, "A New Mode of Treating Deafness," he narrates a consultation with a gentleman from New York in 1841.¹¹² After the initial examination of his ears, the patient was told there was a "great disorganization of the drum of each ear," to which he divulged his confusion, for he was perfectly capable of producing "a degree of hearing quite sufficient for all ordinary purposes" in his left ear. This degree of hearing was satisfactory for the patient, who asked Yearsley to forgo treatment of the left ear and concentrate on the right. Curious, Yearsley asked his patient what was done to produce hearing in the left ear despite the extensive damage to the eardrum. The patient revealed he obtained his residual hearing by inserting "a spill of paper, previously moistened in its extremity with saliva" to the bottom of the ear canal, to "open the ear to a great increase of hearing." He applied the method for an hour, a day, or even a week without repetition.¹¹³

Astounded with the ingenuity of his patient's simple creation, Yearsley applied the treatment in several other cases, but invariably failed to replicate similar success. As he explained, "I was at the point of abandoning the idea that the remedy could ever be made available in practice, and of considering either that my American patient's case was unlike all others, or that it depended on some idiosyncrasy."¹¹⁴ His stance soon changed when a young lady, recommended to

¹¹² James Yearsley, "On a New Mode of Treating Deafness," *The Lancet* 52 (1 July 1848): 10-11.

¹¹³ Yearsley, "On a New Mode of Treating Deafness," 10.

¹¹⁴ Yearsley, "On a New Mode of Treating Deafness," 10.

his practice by surgeon George James Squibb (1797-1860), insisted in the course of her treatment, “that nothing might be left untried.” As Yearsley narrated,

Instead of adopting my American patient’s plan, it occurred to me to try the effect of a small pellet of moistened cotton wool, gently inserted and applied at the bottom of the meatus, so as to come in contact with the small portion of membrane which still remained. The result was astoundingly successful.¹¹⁵

He never revealed what induced him to select cotton-wool, as opposed to continuously testing out different medicines with the paper. Cotton was already a staple in the aurists’ tool-kit, used to clean out blood and pus, so is probable it was readily available for his use. What’s clear, however, is that Yearsley had very “little expectation of success, after so many previous failures,” and emphasized that continuous trials were necessary to ascertain the degree of the device’s effectiveness. The young girl was able to enjoy and converse in social situations that were previously isolating for her after becoming extremely deaf following a bout of scarlet fever. The pellet of cotton-wool was changed daily, requiring precise manipulation and adjustment by Yearsley in order to find the spot that would “produce the best degree of hearing,” though Yearsley was unable to explain why the pellet was effective in a certain area of the ear but not another. Eventually the girl learned how to apply the pellet herself, effectively earning her “independence” from her aurist.

Yearsley stressed that the cotton-wool pellet should *only* be used in cases of deafness attended by perforation of the tympanic membrane. He was not the first to apply this remedy. The first recorded account of the use of a prosthetic tympanum is documented in the German physician Marcus Banzer’s (1592-1665) *Disputation de auditione laesa (Dissertation on Deafness*

¹¹⁵ Yearsley, “On a New Mode of Treating Deafness,” 10.

1640), which outlines his creation of a tube made of elk hoof wrapped with a pig's bladder and inserted into the ear replace the tympanum. Other physicians have also mentioned the use of a prosthetic for tympanic perforation: French physician Leschevin in 1763¹¹⁶ and German physician Johann Heinrich Ferdinand Autenrieth (1772-1835) in 1815,¹¹⁷ although neither proposed its use for improving hearing. Linke and Erhard also wrote of using cotton-wool as a remedy. Various other constructions popped up during the eighteenth and early nineteenth-centuries, suggesting a wide variety of materials to insert into the ear: lint, fishskin, egg membranes, foil, paper, and adhered with saliva, Vaseline, or glycerine. However, these were mainly remedies created by individuals desperate for relief and since these constructions required little expertise beyond trial-and-error and were not permanently effective, medical practitioners did not take them seriously as remedies.¹¹⁸

The key to the effectiveness of the moistened cotton-wool pellet was its placement in the ear. Upon closely examining the young girl's use of the pellet, Yearsley observed

that, until the wool could be brought in contact with a particular spot at the bottom of the [auditory] passage, the hearing was not all benefited, on the contrary, was prejudiced; but the moment it was properly adjusted on that particular spot, the hearing was restored. Subsequent experience, in a vast number of cases, confirms this remarkable fact. It is not merely necessary to introduce moistened cotton-wool to the bottom of the passage; such a manipulation would in most cases add to the deafness. It is essential to find the spot on which to place the wool, and so adjust it as to produce the best degree of hearing of which

¹¹⁶ Leschevin, "Memorie sur la theorie des Maladies de l'Oreille et sur les Moyens, que la Chirurgie peut employer pour leur curation," *Memoires sur les sujets proposes pour les prix de l'Academie Royale de Chirurgie* 4 (1763): 86-120.

¹¹⁷ Johann Heinrich Ferdinand Autenrieth, "Gehörkrankheiten," *Tübinger Blätter für Naturwissenschaften und Arzneikunde* 1 (1815): 129.

¹¹⁸ Chu and Jackler, "The Artificial Tympanic Membrane."

the case may happen to be susceptible. This, of course, differs according to the variety and extent of the disorganization.¹¹⁹

It was imperative that the pellet occupy and cover the spot on the membrane at the site of perforation, but due to the difficulty of passing a foreign body down the auditory passage, a considerable amount of practice and dexterity is required before a patient regained his hearing. In some cases, the cotton-wool pellet was remarkably effective, as with the case of Mr. Griffiths, of Pantgwn, Newcastle whose hearing was so diminished Yearsley had to “raise [his] voice very considerably to make [himself] heard.” After consenting to a trial using the cotton-wool, Griffiths testified: “To my utter astonishment I heard every sound so loud, that I felt I never had known what it was to hear until that moment...On entering the streets, the noise was so intense, that I was compelled to stop up my ears to deaden the sound; but after a time I became accustomed to it, and can now enjoy the pleasures of social converse.”¹²⁰ So remarkable was Yearsley’s cotton-wool method in remedying Griffith’s hearing that Griffith’s own children knew when he was wearing the pellet, as they would remark, “Your ears are too sharp; we cannot now speak to mamma, even in a whisper.” Once the children got accustomed to their father’s hearing, they asked: “Have you not got your new ears to-day, papa?”¹²¹

To maintain the ingenuity of the cotton-wool pellet, Yearsley devised a strict set of directions for application, even advertising and selling the device with a set of printed directions. As will be expanded later in the chapter, the rules of application—or “method” as Yearsley sometimes referred to—was crucial for how he ensured his expertise was effectively embodied within the construction of his innovation: without properly applying the pellet, it would not work

¹¹⁹ Yearsley, “On a new mode of treating deafness,” 10.

¹²⁰ Quoted and reprinted in Yearsley, “On a new mode of treating deafness,” 11.

¹²¹ Quoted and reprinted in Yearsley, “On a new mode of treating deafness,” 11.



*Image 21: Illustration of Yearsley's cotton-wool pellet. From: Urban Pritchard's *Handbook of Diseases of the Ear* (Philadelphia, 1886).*

effectively, if at all, and thus Yearsley's claims, credibility, and even reputation would likely be questioned. The rules evolved from his initial introduction of the device, likely refined and modified from his sparring bouts with Toynbee over the years. A small quantity of wool was sufficient and must be moistened in some fluid—Yearsley doesn't identify what type(s) of fluid in his July 1848 paper—and gently inserted into the bottom of the auditory passage, and adjusted until the pellet occupies and completely encloses the perforation. The 1848 article also refers to a set of instruments Yearsley constructed to assist in inserting the pellet, but no description of them is provided until the following month: an enhanced forceps with a weak spring to allow for the blades or prongs to close with the slightest possible pressure. It differs from other forceps in the design of the prongs themselves, in that they "should have no roughness at their extremities, and should be so rounded to act as a common probe, when in apposition."¹²² The forceps, as Yearsley emphasized, is assistive in "dexterous hands" to accomplish both insertion and withdrawal, but he noted that some patients preferred a separate instrument for adjustment as well as withdrawal of the cotton-wool. To this purpose, he devised another instrument, "a simple rounded bar of silver,

¹²² James Yearsley, *On the Artificial Tympanum: A new mode of treating deafness*, reprints of the *Lancet* articles, 2nd Edition (London: John Churchill, 1862), 27.

probe-pointed at one extremity, and with a small screw at the other: the one end serves to adjust the wool, the other most surely will entangle and withdraw it.”¹²³

The simplicity of the cotton-wool pellet meant patients could be taught to insert/withdraw it themselves. A testimonial by “C.J.” highlighted how patients enjoyed inserting the device themselves: “Another great advantage [to being able to hear with the cotton-wool] is, that after having been taught by Mr. Yearsley, I am able to make use of the remedy myself, without giving trouble to anyone.”¹²⁴ However, Yearsley advised other aurists to first examine the tympanum and the extent of its “disorganization,” to determine the amount of cotton-wool to be applied, and to the place where it would most benefit hearing. He instructed the aurist to first insert the cotton-wool pellet through a speculum, and adjust its position in the ear canal as required. The perforation should be covered in full and the cotton-wool should not enter the tympanic cavity. The patient should renew the cotton-wool night and morning, or morning only, being sure to moisten it completely before inserting it into the passage.

Despite applying this method on over 200 patients, Yearsley was unable to explain why his artificial tympanum was effective, how it functioned in regulating sounds, or even how and why it treated discharges from the ears better than astringents or syringing, which were frequently prescribed for otorrhoea. In some cases, the use of astringents actually aggravated the deafness or causes permanent tinnitus (“ringing” in the ears). How can so simple a remedy be so profound, Yearsley pondered, asking whether “It [was] possible that the moist wool placed at the extremity of the passage can transmit the vibrations of sound in the same manner as the natural membrane,

¹²³ Yearsley, *On the Artificial Tympanum*, 28.

¹²⁴ Reprinted in Yearsley, *On the Artificial Tympanum*, 33.

or must we look for some other explanation?"¹²⁵ For nearly five years, he could not answer his question. In 1853, Yearsley speculated that

The loss of the membrana tympani deprives the ossicula or chain of bones of their natural support, and, consequently, they hang loose and flabby in the cavity of the tympanum; the cotton-wool is so adjusted as to restore to them the necessary support, and then the waves of sound break upon the cotton, through which the impulse is conveyed to the ossicula, and so onwards to the brain.¹²⁶

When inserted into the perforation, the cotton-wool provided the necessary pressure into the tympanic cavity so that sound "may once more press onwards to the brain, where the mind realizes its impression."¹²⁷ To defend this position, Yearsley addressed Astley Cooper's earlier claim that the loss of the tympanic membrane had little consequence to hearing, as many patients regained their hearing following perforation, which allowed the blocked discharge to escape from the tympanic cavity. If Cooper's experiences demonstrated that perforation provided no further damage to hearing, how could Yearsley assert that covering the perforation with a prosthetic did not contradict Cooper's claims? Yearsley speculated the simple loss of the membrane does not necessarily indicate deafness, but, "when taken alone, it often produces a marked diminution of hearing; and sometimes, in consequence of the exposure of the mucous membrane of the tympanum and membrane fenestrae, these structures become diseased to such an extent as to produce extreme deafness."¹²⁸ There's no doubt, Yearsley argued, that his artificial tympanum

¹²⁵ Yearsley, "On a new mode of treating deafness," 11.

¹²⁶ Yearsley, "On the *modus operandi*." Yearsley is describing what we can now refer as "conductive hearing loss," when sound waves do not properly conduct through the tympanic cavity and the ossicles.

¹²⁷ James Yearsley, "On the *modus operandi* of the remedy, and its applicability to other cases than perforate membrana tympani," paper read before the British Medical Association, August 1858; reprinted in Yearsley, *On the Artificial Tympanum*, 34.

¹²⁸ Yearsley, *On the Artificial Tympanum*, 18.

constructed of cotton-wool and aided with a forceps was effective. His multitude of clinical cases testified to that and his expertise in constructing the methodology for its application ensured success in a majority of cases with perforation of the tympanic membrane. While aurists could not deny that hearing is acute when the tympanic membrane is removed altogether than when it is “thickened and diseased,” Yearsley asserted that it was difficult for the aurist to judge exactly what influence the membrana tympani had on hearing.

While Yearsley continued to test out the cotton-wool pellet in his clinical cases, Toynbee focused his dissection researches on the tympanic membrane. In a 1851 paper presented before the Royal Society, he demonstrated that healthy tympanic membrane consist of five extremely thin layers, each of which adds strength to the tympanic membrane while preserving its delicacy and tenuity.¹²⁹ Closely examining the functions of the layers, Toynbee argued they play a pivotal role in maintaining the tension of the tympanic membrane. The circular lamina acts an antagonist to the tensor tympani ligament, pulling the tympanic membrane inwards, while the tensor tympani ligament pulls it outwards, thus maintaining the tension of the tympanic membrane independent from any muscular power.¹³⁰ Toynbee’s observations revealed that contrary to popular opinion, Sir Everard Home (1756-1832) was mistaken in his beliefs that the radial fibres of the tympanic membrane functioned as a muscle.¹³¹

¹²⁹ The epidermis, dermoid, radiate fibrous, circular fibrous, and mucous.

¹³⁰ Joseph Toynbee, “On the structure of the membrane tympani in the human ear,” *Philosophical Transactions of the Royal Society of London* 141 (1851): 159-168; 164.

¹³¹ Adam Politzer, *History of Otology* (1907), translated by Stanley Milstein, Collice Portnoff and Antje Coleman (Phoenix, Arizona: Columella Press, 1981), 217.

In another paper presented before the Royal Society in February 1853, Toynbee counteracted the claim of anatomists that the Eustachian tube always remains open.¹³² This was a significant statement, for medical practitioners have long argued for an uninterrupted communication between the tympanic cavity and the fauces (the part of the pharynx directly behind the mouth cavity), connected by the Eustachian tube. As long as the Eustachian tube remained open, one could argue that hearing and speaking were connected—providing degrees of support for advocates of speech-training for the deaf. Toynbee, however, demonstrated that the Eustachian tube is only momentary opened in the act of swallowing, briefly allowing air to enter or leave the tympanic cavity. He argued his statements could be empirically proven, for

To those accustomed to descend in a diving-bell, it is well known that the unpleasant sensation in the ears, amounting sometimes to positive pain, is capable of instant removal by the act of swallowing, during which the condensed air being allowed to enter the tympanum and come in contact with the inside of the membrana tympani, the pressure on the outer surface is relieved by being counterbalanced.¹³³

These two papers demonstrated Toynbee was thinking about how the tympanic membrane and the tympanum functioned in terms of regulating sounds.

Based upon his investigations into the Eustachian tube, Toynbee asserted that the function of hearing is best carried out when the tympanum is a closed cavity. Experimenting with tuning-forks, he demonstrated that sonorous vibrations are better communicated to the head for bone-conduction hearing when the meatus is closed, rather than when it is opened, concluding it was

¹³² Joseph Toynbee, "On the muscles which open the Eustachian tube," *Abstracts of the Papers Communicated to the Royal Society of London* 6 (1850-1854): 286-287.

¹³³ Toynbee, "On the muscles which open the Eustachian tube;" Joseph Toynbee, *On the Use of the Artificial Membrana Tympani in Cases of Deafness, dependent upon perforation or destruction of the natural organ*, 6th edition (London: John Churchill, 1857), 10. The same sensation is also experienced when descending in an airplane: chewing gum relieves the intense pain that comes from an imbalance of air pressure.

"highly probable that the sonorous vibration imparted to the cavity of the tympanum, should only make their due impression on the membranes of the labyrinth, when strictly confined to the tympanic cavity."¹³⁴ Essentially, these experiments revealed that sonorous vibrations could be confined strictly to the tympanic cavity, denouncing the analogy that the tympanum is analogous to kettle-drums—all the walls of the tympanic cavity were constructed for producing resonance.

Laying out his theoretical groundwork on how sounds were produced in the tympanic cavity, Toynbee reissued his papers on the anatomy of the tympanic membrane, the tympanum, and the Eustachian tubes, in an 1853 pamphlet, *On the Use of the Artificial Membrana Tympani*.¹³⁵ The pamphlet, which also includes Toynbee's paper before the Provincial Medical Society where he first presented his invention, outlined how he applied his anatomical findings to provide an argument for how perforation of the tympanic membrane diminishes hearing:

Under any of these circumstance [of varying types of perforation] it occurred to me that as an orifice in the membrana tympani, by preventing the sonorous undulations from being concentrated upon the membranous labyrinth, owing to their diffusion in the meatus, might be the direct cause of the diminished power of hearing, so it was probable that increased power would be result of an artificial stoppage of the orifice.¹³⁶

The "train of reflection" led to the construction of Toynbee's artificial membrana tympani, which he hoped would serve as a substitute for the natural membrane in regards to closing the tympanum and rendering its walls resonant. From various uncomplicated cases of perforation, Toynbee realized that hearing could be temporarily improved—in some cases, a few minutes only, in others, a few hours—following the use of syringing and tepid water, the use of a handkerchief,

¹³⁴ Toynbee, *On the Use of the Artificial Membrana Tympani*, 12.

¹³⁵ Toynbee, *On the Use of an Artificial Membrana Tympani*, 5-6.

¹³⁶ Toynbee, *On the Use of an Artificial Membrana Tympani*, 14.

or even a solution of gum acacia in water. These cases and their experimental treatments led him to conclude that whatever the solution inserted into the ear, the solution confined the sonorous undulations to the tympanum by creating a bubble that replicated the functions of the tympanic membrane.

These cases and subsequent observations led Toynbee to conduct further experiments with various materials that would best serve as a prosthetic for the tympanic membrane. In his paper as well as in his later publication, *Diseases of the Ear* (1860), Toynbee never revealed what materials he experimented with, or how he eventually came to choose vulcanized India rubber and gutta purcha for his prototype artificial membrana tympani. The prototype was merged the thinnest layers of India rubber and gutta percha, cut approximately the size of the natural membrane, and with a fine piece of thread passed through it; the thread was enclosed in a fine tube, which was then used to insert the artificial tympanum in the meatus, "by which the artificial membrane could be withdrawn at the pleasure of the patient or the operator."¹³⁷ Whereas Yearsley described adjusting the cotton-wool until it was readily applied to the desired location, Toynbee acknowledges the general difficulty of his prototype, mainly that: "the difficulty of applying it on the part of the patient; liability of the material to be torn by the thread and unsightliness of the latter hanging down from the meatus."¹³⁸ The last "disadvantage" is particularly interesting, for it reflects the prevalence of nineteenth-century design trends of hearing aids favouring concealment.

Regardless of its initial difficulties, Toynbee found his prototype sufficient to enlist the services of John Weiss & Son, London's premier surgical instrument makers located on 62 Strand,

¹³⁷ Toynbee, *On the Use of an Artificial Membrana Tympani*, 15.

¹³⁸ Toynbee, *On the Use of an Artificial Membrana Tympani*, 15.

London.¹³⁹ Toynbee requested a more sophisticated version of his device that would correct the disadvantages, particularly the liability of it being torn. Under Toynbee's directions, Weiss constructed a new device,

the center of which should consist of two very fine plates of silver, having a diameter of about three quarters of a line, between which the layer of vulcanized india rubber or gutta percha might be placed, and to the outer surface of one of these plates a silver wire was to be attached. The artificial membrana tympani made by Mssrs. Weiss [sic], from these directions, have hitherto been perfectly successful. As supplied by them, the portion of vulcanized india rubber or gutta percha is about three quarters of an inch in diameter, which leaves sufficient margin for the surgeon to cut out a membrane of any shape that may seem to him desirable, and to leave the silver plate, either in the center, or towards the circumference, at his discretion.¹⁴⁰

The silver plate would prevent the rubber from falling apart during insertion and the silver wire allowed for the device to be inserted and withdrawn easily by the patient; moreover, the wire was at sufficient length as "not perceived externally except upon especial observation."¹⁴¹ Weiss also constructed a second artificial tympanum, constructed of delicate silver rings about 1/8th or 1/6th of an inch in diameter, riveted together and with a layer of gutta percha or vulcanized India rubber placed between the rings. This version also leans outward and forwards, imitating the direction of

¹³⁹ Founded in 1795 by John Weiss (1773-1843) and later managed by his son Fredrick Foveaux Weiss and a series of partnerships, the company's instruments were remarkably constructed and known for their remarkable craftsmanship and quality. Members of the Royal Society, including Astley Cooper, Benjamin Collins Brodie and Sir Everard Home were amongst Weiss's eminent clientele. James Edmonson, *The Surgical and Dental Instrument Catalogues from the Civil War Era* (San Francisco: Norman Publishing, 1997), xi; 75.

¹⁴⁰ Toynbee, *On the Uses of an Artificial Membrana Tympani*, 15-16.

¹⁴¹ Toynbee, *On the Uses of an Artificial Membrana Tympani*, 16.

the natural membrane, and Toynbee adds that this “kind of membrane is often preferable to that previously described, if the meatus is sufficiently large to admit of his passage.”¹⁴²

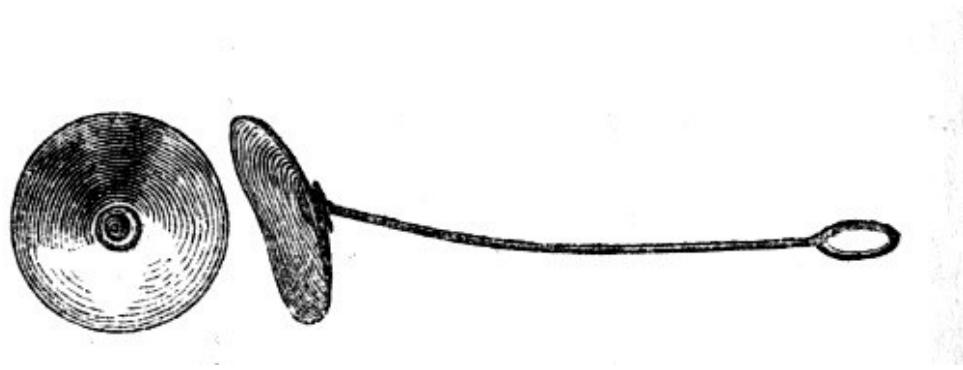
Like Yearsley, Toynbee emphasized that the artificial membrana tympani delivers the greatest benefit in cases where there is clearly defined perforation of in the tympanic membrane, with, or without discharge. Toynbee also provides a strict set of rules for applying the device, highlighting that the decision to use a foreign substance must follow close and careful observations by the surgeon. Once ascertained that the artificial membrana tympani will be useful, the aurist must then measure the size of the inner extremity of the ear, possibly with a speculum, then “cut the artificial membrane as nearly of the size and shape of the naturel one as possible, taking care at the same time to keep the margin quite smooth and regular.”¹⁴³ Before inserting the device, the patient must be seated with the head inclined, with sufficient light shining towards the ear to aid the aurist’s application; the aurist must first moisten the device with water, then pass it with the silver wire gently inwards, until he hears a “faint bubbling sound,” evident of compressed air escaping. He must be careful not to induce the device any further, for then the “patient will complain of pain, which until then had not been felt.”¹⁴⁴ The most certain test of the device’s successful placement, is “the sensation of the patient, who discovers, by the sound of his own voice, or that of the surgeon, or by the movement of his tongue and lips, that his hearing has been suddenly much improved.”¹⁴⁵ The patient should be instructed not to use the artificial tympani for more than two hours daily, reduced to one hour or thirty minutes at signs of discomfort; if no pain is experienced, the patient should gradually increase the time to a few hours and eventually a

¹⁴² Toynbee, *On the Uses of an Artificial Membrana Tympani*, 16-17.

¹⁴³ Ibid., 20-21.

¹⁴⁴ Ibid., 21.

¹⁴⁵ Ibid.



*Image 22: Joseph Toynbee's standard artificial tympanum of India-rubber and silver wire. From Toynbee's *Diseases of the Ear* (1860).*

whole day, making sure to remove the device at night and syringe out the ears daily with tepid water if there's any discharge. Confident in the capabilities of his artificial tympanum, Toynbee reassured the medical community that his construction of the device not only functioned well, but did so because it was a product of years of research into the morbid anatomy of the ear—a “requisite foundation,” he adds, “on which any scientific and practical results should be based.”¹⁴⁶

RIVALRY AND PROFESSIONAL JEALOUSLY

Toynbee's device started generating buzz following its initial introduction at the meeting of the Provincial Medical and Surgical Association in Oxford during 21-22 June 1852. Word of Toynbee's presentation eventually reached Yearsley, who was not present at the meeting but felt compelled to write a letter to the editor of the *Provincial Medical and Surgical Journal* on 30 July 1852:

¹⁴⁶ Joseph Toynbee, “Pathological Researches into the Diseases of the Ear, fifth series,” *Medico-Chirurgical Transactions* 38 (1855); expanded from original paper presented before the Royal Medical and Chirurgical Society 13 February 1849.

If I had been present, I should have considered it my duty to show the impossibility of patients using any such apparatus as that proposed by Mr. Toynbee, in cases of perforation of the membrana tympani; in the first place from the irritation it would invariably produce; and secondly, from its inefficiency, inasmuch as it tends to do the very opposite of that which is essential to success in these cases, namely—to preserve the opening into the tympanum, and not close it. Success never follows the use of my remedy—the moistened cotton, unless it be so adjusted as to leave an opening into the tympanum. There can be no doubt that the cotton operates by affording support to the remaining portion of membrana tympani, or of the ossicula of which they have been bereft by the lesion of the said membrane.

I can tell Mr. Toynbee, from experience in many hundreds of cases, that to make the tympanum a shut chamber, would deprive the patient of whatever degree of hearing he may otherwise enjoy. I can tell him, also, as the result of an infinity of experiments, that he will never find a better appliance than cotton moistened in water, or the saliva of the patient. Simple as that remedy is, the irritation it produces is sometimes so great as to preclude its employment, or, at all events, necessitate its suspension.¹⁴⁷

Yearsley clearly does not take Toynbee's instrument seriously, dismissing it as a yet another "pretended novelty in aural surgery." In the next issue of the journal, an anonymous correspondent replies to Yearsley's letter, stating that if Yearsley had attended the meeting, he would have stated any objections against Toynbee, "provided that he avoided making any personal courtesy in his remarks."¹⁴⁸ However, by writing the letter, Yearsley backhandedly insinuates "improper motives" on Toynbee's part. Signing his name "Fair Play," the author ends his letter by advising Yearsley to adhere to the proverb that "those who have glass windows should not throw stones," and to abstain "from writing in a manner savouring too much of professional

¹⁴⁷ James Yearsley, "On Mr. Toynbee's New Aural Apparatus," *Provincial Medical and Surgical Journal* 16.17 (18 August 1852): 431.

¹⁴⁸ Anonymous, "Mr. Toynbee's New Aural Apparatus," *Provincial Medical and Surgical Journal* 16.18 (1 September 1852): 458.

jealously.”¹⁴⁹ Yearsley does not reply to the anonymous letter, nor does Toynbee add his voice to the conversation (it is also possible Toynbee authored the letter).¹⁵⁰ In the pages of the *Provincial Medical and Surgical Journal*, nothing more is said of Toynbee’s apparatus in 1852.

On 10 June 1853, the Society of Arts held its Anniversary meeting chaired by Prince Albert (1819-1861), who noted that three years had elapsed since the Society distributed its Medals and Honorary Awards for Inventions.¹⁵¹ Thirty-three prizes were awarded for a varied range of inventions: to John Cronmire for his half-crown box of mathematical instruments; to Henry

¹⁴⁹ Anonymous, “Mr. Toynbee’s New Aural Apparatus,” *Provincial Medical and Surgical Journal* 16.18 (1 September 1852): 458.

¹⁵⁰ It’s likely Yearsley’s silence was due to his preoccupation with managing his fortnightly journal, *Medical Circular*, which released its first issue on Wednesday 17 January, 1852 under the full title *The Medical Circular, and General Medical Advertiser: A Register of the Sayings and Doings of the Medical Profession*. Yearsley was certainly the proprietor, though it’s unclear whether he played any editorial role; officially, the position belonged to physician George Ross (b.1815), who had collaborated with Yearsley the *Medical Directory*. According to Robert Rowlette, while it’s unclear whether Yearsley shared the editorship with Ross or the extent of the professional relationship between them, Yearsley certainly had some part in the management of the journal until his retirement in 1857. Robert Rowlette explains that when Ross announced Yearsley’s retirement, he stated that Yearsley had discharged his editorial duties from the foundation of the journal. The *Medical Circular* was initially designed to be a “conspectus” of all interesting and valuable topics published in other periodicals, with special sections on a new publications, Biographical Notices, Irish affairs, as well as correspondence—though not original. The first two years reached a circulation of 106,546, possibly owing to low price of threepence. In 1855, a new feature was introduced on the publication of clinical and other lectures. Both Yearsley and Ross frequently contributed original lectures, though Yearsley concentrated more on aural surgery than other topics. For instance, he wrote several articles on the art of laryngoscopy as an aid for diagnosing throat diseases and deafness [*Medical Circular*, 20-21 (June-July 1862)]. Robert J. Rowlette, *The Medical Press and Circular 1839-1939: A Hundred Years in the Life of a Medical Journal* (London: Salus Populi, 1939).

¹⁵¹ Owing the interruption to the Great Exhibition of 1851 and “the excitement which it produced, and the large share of public attention which it claimed” the Prince credited the Society for its role in promoting the advancement of science and remarked that the “inventive genius and skill of this country is still making most rapid strides.” Before reading the list of awards and medals, the Secretary explained that the smaller number of prizes are not a reflection of the Society’s hesitation in rewarding merit, but rather because “from the altered spirit of the times [following the Great Exhibition].” *Journal of the Society of Arts* 1.30 (17 June 1853): 365. It was typical of the Society to award medical innovations—including vapour baths and rupture trusses—as they tended to accept anything that might be tied with their general philanthropic concerns, rather than any emphasis on “technological progress.” Thanks to Matthew Paskins for drawing my attention to this.

Weekes for his essay on the fine arts department at the Great Exhibition; to J. Rock of Hastings for his new carriage-spring; to G. Edwards for his improved portable photographic camera; to W. Wood for his improved mode of teaching to the blind. The Society of Arts Medal was also bestowed to Joseph Toynbee for his artificial membrana tympani. Toynbee was aware of the possibility of receiving an award from the Society of Arts, having written to Richard Owen the week before,

I thank you for your kind note respecting the use of the artificial membrana tympani. The subject is now before the Society of Arts who are about to decide at once, whether it is worthy of any testimony of their approval. Should you be able to say a word in my Favor to Mr. S__ the Secretary or to any of the Council I shall esteem it a favor.¹⁵²

It is unclear how much influence Owen had over the award. The award certainly infuriated Yearsley, who soon took his outrage over the piracy public. However, the issue of priority was not a new one. As mentioned earlier, French and German aural surgeons had already applied variations of the artificial tympanum to their patients and had even written about it, however briefly, and Yearsley makes no mention of these works. In an 1851 letter to the editor of *Union Médicale* (as translated and reprinted in the *Medical Times and Gazette* by Yearsley), Nicolas Deleau draws attention to the fact in 1822, long before Yearsley's encounter with his American patient, he published *Traité de la Perforation de la Membrane du Tympan*. The treatise describes the case of 24-year-old Richalet, who was deafened at 10 years old, who inserted into his left ear a small piece of wood, upon which "to his surprise, he immediately heard all the noises in the

¹⁵² Joseph Toynbee to Richard Owen, 3 June 1853. British Library, Letters to Sir Richard Owen Collection MS 39954 ff.293.

street!"¹⁵³ Once the wood was removed, Richalet lost his hearing once again; he thus experimented with inserting an onion sprout, which increased his hearing better than the wood. Replying in kind in the *Union Médicale*, Yearsley explained he had consulted all available works on disease of the ear and had found no mention of the same mode of treatment he devised, recommended by any other aural surgeon. Yearsley was well aware of isolated cases in which patients took it upon themselves to adopt different expedients into their ear, but he clarified that "not one had ever thought of using cotton-wool, or anything else *continuously* in the ear."¹⁵⁴ He also dismissed Deleau's case of Richalet, describing it as "another corroboration of the fact, but nothing more," arguing that Deleau undermined the case's importance by reducing it to a footnote in his publication.¹⁵⁵

In the years that followed, Yearsley and Toynbee publicly squabbled on a multitude of topics, ranging from whether enlarged tonsils or elongated uvula ought to be excised in treatments of deafness;¹⁵⁶ the treatment of otorrhoea (discharge of the ear)—a term Toynbee "endeavoured to establish on account of his great ambiguity";¹⁵⁷ and especially on the materials

¹⁵³ Nicolas Deleau's letter, as translated by James Yearsley in "Mr. Wilde's Report," *Medical Times and Gazette* no.41 (12 April 1851): 412

¹⁵⁴ Yearsley, "Mr Wilde's Report," 413.

¹⁵⁵ Yearsley also dismisses Itard's use of the artificial tympanum on the basis that Itard did not appear to take it seriously as a remedy, since only a small reference is made to its use.

¹⁵⁶ James Yearsley, "Enlarged Tonsils and Deafness," *Medical Times and Gazette* (1853: 432; Joseph Toynbee, "Ought the tonsils or uvula to be excised in the treatment of deafness?" *Medical Times and Gazette* (1853): 493-496; James Yearsley, "Ought the enlarged tonsils or the elongated uvula to be excised in the treatment of deafness?" *Medical Times and Gazette* (1853): 549-552.

¹⁵⁷ James Yearsley, "On a new method of treatment for otorrhoea," *The Lancet* 65 (5 May 1855): 451-3; Joseph Toynbee, "On the treatment of otorrhoea," *The Lancet* 65 (9 June 1855): 583. The debate over otorrhoea stemmed from Yearsley's statements that cases of partial or entire loss of the tympanic membrane are often induced with discharges from the ear; upon treating the perforation, in many of his cases he observed a gradual diminution of the discharge, in some cases, even completely stopped. Speaking of the use of wetted cotton-wool, he states "there can be no doubt such a result is alone attributable...A fact so remarkable could not fail to claim attention; and the first cases of chronic discharge from the ear that

used for the artificial tympanum¹⁵⁸ In one *Lancet* article, Toynbee penned a full-fledged attack against Yearsley's 1848 paper, beginning with a critique that Yearsley failed to properly explain his "rules" for inserting the cotton-wool pellet, and continuing to remark that Yearsley never explained the *modus operandi* of the device, and without a clear set of rules, "the operation is described as very difficult, and one which few surgeons could have the skill to perform."¹⁵⁹ Toynbee drew attention to the fact that Yearsley never used the terms "artificial membrana tympani" or "artificial tympanum" in his 1848 paper, suggesting that Yearsley coined the phrase "artificial tympanum" and published it as the title of his 1853 pamphlet *after* Toynbee published his paper.¹⁶⁰ While Yearsley did heavily promote his cotton-wool pellet as "artificial tympanum" following his debates with Toynbee, he does mention the phrase in his 1851 letter regarding Deleau's priority case.¹⁶¹ Clearly this was Yearsley's argumentative approach for claiming priority—both his and Toynbee's devices were the same technological creation, just different in composition. Yearsley submitted a response against Toynbee's "hasty and ill-considered attack," being sure to note that Toynbee himself never provided a theory to explain the *modus operandi*

presented themselves, irrespective altogether of deafness, were made the subjects of my experiments with the cotton." Yearsley, "On A New Method of Treatment for Otorrhoea," 451. Also James Yearsley, *On a new method of treating Discharges of the Ear (Otorrhoea)* 3rd Edition (London: John Churchill, 1864).

¹⁵⁸ Joseph Toynbee, "On the Artificial Membrana Tympani," *The Lancet* 66 (27 October 1855): 358-6; James Yearsley, "On the Artificial Tympanum," *The Lancet* 66 (17 November 1855): 465-7; Joseph Toynbee, "On the Artificial Tympanum," *The Lancet* 66 (1 December 1855): 534-5.

¹⁵⁹ Possibly an extremely sarcastic statement on Toynbee's part. Toynbee, "On the Artificial Membrana Tympani," 385. Yearsley later publishes a paper explaining his theory on the *modus operandi* of the artificial tympanum: James Yearsley, "The Modus Operandi of the Artificial Tympanum," *The British Medical Journal* 2 (28 August 1858): 723-724.

¹⁶⁰ The pamphlet is a reprint of Yearsley's 1848 articles on the cotton-wool pellet. James Yearsley, *On the Artificial Tympanum: on a new mode of treating deafness, when attended by partial or entire loss of the membrana tympani, associated or not with discharge from the ear* (London: John Churchill, 1853); second edition was published in 1862.

¹⁶¹ In most of his discussions regarding the cotton-wool, Yearsley refers to the device as "a new mode of treating deafness," or "my remedy," suggesting that initially, his claims were for a particular treatment technique, rather than a technological treatment.

either and that his own merit is “the greater for having been the first practically to apply the treatment, and reduce it to a system.”¹⁶²

The “charge of piracy,” Yearsley continued, “has provoked a *defence*,” one he deemed worthy of offering a few remarks, though he clarified that he had no desire to “engage in a journalistic controversy” with Toynbee.¹⁶³ Beginning with his frustration of the unfair manner in which Toynbee strings together a series of quotations from Yearsley’s 1848 paper in a “garbled and disjointed” fashion, Yearsley responded to some of the charges made by his adversary, including that he failed to provide specific rules for the artificial tympanum’s use, the amount of cotton-wool to be used, and the frequency of usage by the patient. In an attempt to end the debate, Yearsley offered several conclusions: that the artificial membrana tympani as proposed by Toynbee was merely a “modification only of material;” that cases of perforated tympana can be treated by either of the devices; that the perforation must never be completely covered in order to maintain communication with the outer ear; that the “good effect” is immediately noticeable once a “click or pop” is heard and is maintained as long as the device is used; and that finally, the cotton-wool is superior and preferable because of its simplicity in use and thus produces a higher degree of hearing.¹⁶⁴

William Wilde was one of the earliest aurists to comment extensively on the artificial tympanum. Writing about the “good deal” being made of the “complete cure for deafness” in the form of cotton-wool, which was “extolled in public prints as well as medical periodicals, as a panacea for deafness in all shapes, and arising from all causes,” Wilde commended Yearsley for making “this discovery known to the Profession.” Yearsley’s recommendation, he continued, is a

¹⁶² Yearsley, “On the Artificial Tympanum,” 467.

¹⁶³ Yearsley, “On the Artificial Tympanum,” 465.

¹⁶⁴ Yearsley, “On the Artificial Tympanum,” 467.

highly valuable one, for in “some cases, what it will effect is quite marvellous—almost instantaneous restoration to comfortable hearing; but in other instances...it does not succeed so well, or even at all.”¹⁶⁵ It cannot succeed, for instance, in cases without total destruction of the tympanic membrane; moreover, the fact that it require a bit of tact to insert appropriately in the right place can prove difficult or frustrating for some practitioners and/or patients. As Wright concluded his review, he noted: “I have made these observations...because the subject is one that has lately engaged, and very justly, much attention, and because I have tested by several cases lately the opinion which I have just expressed.”¹⁶⁶ He had nothing to add about Toynbee’s version, which was just introduced at the time of publication, but remarked, “I have no experience of it; but I doubt its general applicability.”¹⁶⁷

Wilde’s testimonial, published in 1851—and later published in his 1853 *Practical Observations on Aural Surgery*—reveals how Yearsley’s device was already gaining prominence among aurists well before Toynbee introduced his own artificial tympanum. Although Yearsley thanked Wilde for his “eulogistic testimony,” he nevertheless felt compelled to state “I beg to assure him that he would find it much more successful if he would follow more closely the directions I have given for its application.”¹⁶⁸ The cotton-wool, he insisted, should *not* be cut to fit the aperture of the tympanic membrane as Wilde narrates, but “be allowed to press gently and

¹⁶⁵ Wilde, *Practical Observations on Aural Surgery*, 35.

¹⁶⁶ William R. Wilde, “Practical Observations on Disease of the Ear; with Records of Cases Treated at St. Mark’s Hospital, Dublin,” *Medical Times* no.39 (29 March 1851): 344-348; 347-8.

¹⁶⁷ Wilde, *Practical Observations on Aural Surgery*, 310.

¹⁶⁸ James Yearsley, “Mr. Wilde’s Reports,” *Medical Times* no.41 (12 April 1851): 412-413; 412.

externally against the remaining portion of the membrane," so as to provide support for the ossicula.¹⁶⁹

The issue of whether the artificial tympanum should completely enclose the perforation is one Yearsley returns to in multiple instances of his career, particularly in his furious disagreements with Toynbee. In one exchange, for instance, Yearsley explained,

not only has Mr. Toynbee committed an error as to the means [of application], but he has, relying upon a false theory, mistaken the principle upon which all such modes of treatment can possibly succeed. To close up the perforation and reproduce what he calls a shut chamber, is positively to derive the patient of the little hearing he may happen to possess.¹⁷⁰

The objective of the artificial tympanum, he assured, whether of cotton-wool or of a circular disc, was to provide support to the ossicles in order to allow for sound resonance—anything else was counterproductive. Toynbee disagreed with this view. His anatomical investigations suggested that because the tympanic cavity functioned as a chamber, sonorous vibrations bounced off the tympanic membrane in order to adequately resonate sound. This mechanics was only possible if the perforation was slightly covered, rather than completely enclosed.

Toynbee insisted that he never omitted Yearsley's cotton-wool method from his explanations of the artificial membrana tympani. In an editorial letter to *The Lancet* on 1

¹⁶⁹ He continued: "More than once I have felt myself called upon to correct this deviation from my plan. Many hundreds of persons with diseased tympana are deprived of the advantages of this treatment from a misunderstanding on the part of practitioners of the principles or maladroitness in the mode of applying it. It is to be regretted that aural surgeons will not condescend to pay me a visit, and take a lesson in its application. I must not be considered presumptuous in speaking thus egotistically, for be it remembered I had practised the treatment six years before I published an account of it." Yearsley, "Mr. Wilde's Reports," 412.

¹⁷⁰ James Yearsley, "On Deafness, and the Destruction of the Membrana Tympani," *Medical Times and Gazette* (1853): 379.

December 1855, Toynbee quoted extracts from Yearsley's publications, including his statement "It is far from my wish to discourage the attempts of others to place alright these magical bits of wool; but the truth compels me to add that, simple as it may appear, it is an operation requiring the most delicate tact to manipulate with success, which great experience can confer." To this, Toynbee gave "full credit" to Yearsley for the cotton-wool, but says nothing further.¹⁷¹ So adamant was Yearsley in ensuring his method was appropriately followed and his priority secured, that he filed an application for a patent, eight years after his introduction of the cotton-wool pellet. The provisional specifications of his application, however, summarize the *method* of application, rather than structuring the cotton-wool pellet as a technological device. Though he never filed for Letters Patent, for Yearsley, the patent application was sufficient to ensure his priority—and to end the debates between him and Toynbee and his struggle for professional identity and power.¹⁷² Moreover, not only was Yearsley's cotton-wool method among the first UK patent for hearing aid devices, but it was an attempt to ensure Yearsley's monopoly over his intellectual property.¹⁷³ To ensure the device was properly inserted, Yearsley advertised and sold his device with a set of printed directions. One such advertisement listed the price for a silver tube for inserting the

¹⁷¹ Joseph Toynbee, "On the Artificial Tympanum," *The Lancet* 66 (1 December 1855): 534-5.

¹⁷² Stathis Arapostathis and Graeme Gooday, *Patently Contestable: Electrical Technologies and Inventor Identities on Trial in Britain* (Cambridge & London: The MIT Press, 2013).

¹⁷³ Pamela O. Long, "Invention, Authorship, 'Intellectual Property,' and the Origins of Patents: Notes towards a Conceptual History," *Technology and Culture* 32.4 (1991): 846-884. Intellectual property, as Long explains, grants limited monopolies under certain conditions for kinds of authorship, whether it is written authorship or the making and invention of material objects; though an anachronistic term the term at least provides a framework for thinking about knowledge ownership.

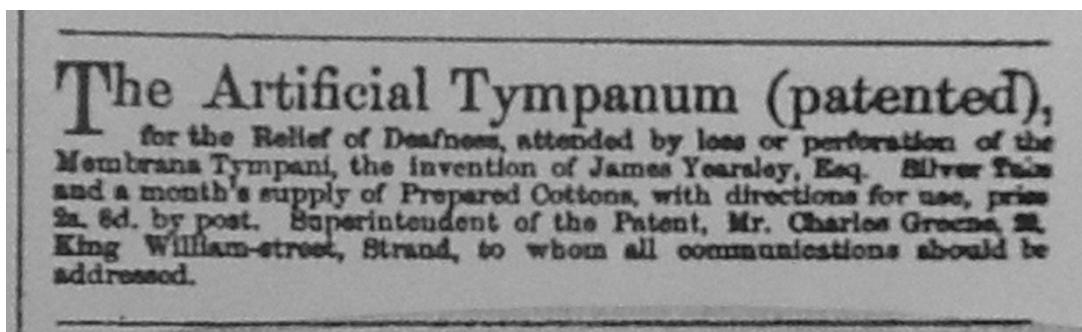


Image 23: Advertisement for Yearsley's Artificial Tympanum, in *Medical Times and Gazette* (14 November 1857).

artificial tympanum and a month's supply of prepared cotton with printed directions at 2s.6d, and without the tube, 1s, with the copy highlighting that the device was patented.¹⁷⁴

Sally Frampton notes that medical practitioners' experiences of intellectual property—and of priority and patents—can be vastly different than that of other professions; medical discussions of patents and priority were notably absent from debates on patent laws and rights in Victorian England.¹⁷⁵ Where they were discussed in medical journals, Frampton argues, “it tended to be with suspicion and disdain,” for patents appeared to contradict the altruistic image of medical culture.¹⁷⁶ This could explain Toynbee’s disdain of Yearsley’s patent. As Toynbee explained, Yearsley’s advertisements for the “Artificial Tympanum (Patented)” were a continuous reminder that “the subject of Aural Surgery, which I have labored long and hard to uplift, is being ruthlessly dragged down.”¹⁷⁷ In some instances, advertisements for new treatments functioned as an

¹⁷⁴ 1858 value of 2s.6d. in 2010 currency calculates to £9.18 and 1s into £3.92 using the retail price index (at the time of writing, currency data is only available until 2010). Calculated from www.measuringworth.com

¹⁷⁵ Sally Frampton, “Patents, Priority Disputes and the Value of Credit: Towards a History (and Pre-History) of Intellectual Property in Medicine,” *Medical History* 55 (2011): 319-324.

¹⁷⁶ Frampton, “Patents, Priority Disputes and the Value of Credit,” 320.

¹⁷⁷ Joseph Toynbee, “The Artificial Membrana Tympani,” *Medical Times and Gazette* (12 December 1857): 614-15; 615. Earlier he had mentioned that the adverts highlighted the extremely simplicity of the cotton-wool, to which “every medical man who has once diagnosed his case correctly may try to operate; indeed

economic necessity, especially when practitioners were faced with high levels of competition in the medical marketplace.¹⁷⁸ Supplementing an income was the reality of nineteenth century medical practice, a period in which general practitioners were faced with extreme pressure to conform to the “professional ideal.”

However, given the circumstances of the priority dispute between the two practitioners, it is probable that Yearsley saw patenting his cotton-wool artificial tympanum as a way to rhetorically maintain his stronghold over the debate. Patenting allowed him to persuade patients and other aurists that the device was trustworthy, effective, and credible. Moreover, for Yearsley, his patent could also function as a “rhetorical manipulation,” a way to craft a particular image of his role as a surgeon.¹⁷⁹ As Yearsley reminded Toynbee, the only reason he filed for a patent was because of Toynbee’s “unhandsome conduct” and that of a Parisian (likely Deleau), which led him to “seek this mode of protection against improper and dangerous appliances, such as the artificial membrana tympani, by which a new and important principle of treatment was liable to be brought into disrepute.”¹⁸⁰

In an 1857 lecture delivered at St. Mary’s Hospital, Toynbee attempted to state the last and latest views on the subject. Although he raised the point Itard, Deleau, and David Tod have also previously mentioned the use of a foreign substance for treating perforations, Toynbee

when he is told that Mr. Yearsley has now taken measures to advertise to the general public and sell the cotton wool and a silver tube (under the name of artificial tympanum) to the deaf public for their own use, a medical man need no longer be afraid of operating with it, in spite of the formidable array of precise directions given by Mr. Yearsley.” Toynbee, “Lecture XIX,” 520.

¹⁷⁸ Jacqueline Jenkinson, “A ‘Crutch to Assist in Gaining an Honest Living’: Dispensary Shopkeepers by Scottish General Practitioners and the Responses of the British Medical Elite, ca. 1852-1911,” *Bulletin of the History of Medicine* 86.1 (2012): 1-36; Anne Digby, *Making a Medical Living: Doctors and Patients in*

¹⁷⁹ Sabine Arnaud, “Citation and Distortion: Pierre Pomme, Voltaire, and the Crafting of a Medical Reputation,” *Gesnerus* 66.2 (2009): 218-236.

¹⁸⁰ James Yearsley, “The Artificial Membrana Tympani,” *Medical Times and Gazette* (19 December 1857): 640-1; 641.

acknowledged that “Mr. Yearsley’s statements [on the cotton-wool]...were most valuable and suggestive to me; indeed, although my mind was constantly alive on the subject, it is of course possible that but for Mr. Yearsley’s paper, I might have not invented the artificial drum.”¹⁸¹ Toynbee refused, however, to budge from his stance that the entire opening of the perforation should be covered. Responding in kind, Yearsley accepted, “with thanks, the instalment [sic] of justice,” but added that until Toynbee rewrites in all his former articles his debt to Yearsley, he “cannot be said to be free from the imputation of disingenuous conduct towards me.”¹⁸² Yearsley’s reply continued with another analysis on whether perforation should be covered and on the *modus operandi* of the cotton wool—that, unlike Toynbee’s statements, it’s actually the rupturing of the air bubble that enables the device to work, not the creation of the bubble.¹⁸³ In his reply, Toynbee mocked Yearsley’s demands for “full justice,” adding enough justice was retained from the advertisements.¹⁸⁴ He ends his correspondence by stating: “It may be said that I am not consulting the dignity of my Profession...I reply, that I consult and advance the dignity and honor of my Profession by using every means within my reach, which I think shall best serve to advance what is high and right, and to put a stop to what is low and wrong.”¹⁸⁵

The exchanges between Yearsley and Toynbee continued for the next month, though they were not as extensive. Having had enough with Toynbee’s continuous personal attacks, Yearsley stated: “And now I take my leave of Mr. Toynbee, willing to resume the calm discussion of

¹⁸¹ Joseph Toynbee, “Lecture XIX: Supplementary Lecture on the Artificial Membrana Tympani,” *Medical Times and Gazette* (21 November 1857): 519-20; 519.

¹⁸² James Yearsley, “On the Artificial Tympanum,” *Medical Times and Gazette* (5 December 1857): 575-577.

¹⁸³ Yearslye, “On the Artificial Tympanum,” 577.

¹⁸⁴ Joseph Toynbee, “The Artificial Membrana Tympani,” *Medical Times and Gazette* (12 December 1857): 614-15; 615.

¹⁸⁵ Toynbee, “The Artificial Membrana Tympani,” 615.

scientific questions, but not to indulge in personalities.”¹⁸⁶ Yet, despite his inclinations to end the debate, Yearsley published a pamphlet titled *Controversy on the Artificial Tympanum*, with reprints of their various exchanges in the *Medical Times and Gazette*, making it clear that his objective was guided by “Science” and not personal triumph over an adversary. Feeling confident that the cotton-wool was superior to Toynbee’s vulcanized India-rubber, Yearsley professed:

Not one word, more than may be necessary in explanation, shall be added to the reprinted controversy. Out of his own mouth will I prove Mr. Toynbee’s delinquencies, and if it is seen that the tactics of this *soi-disant* lecturer on Aural Surgery have been foist himself into practice by succumbing to the prejudices of patients against operative proceedings which are sanctioned by every living surgical authority, and by other unworthy means, and that he has thus placed himself on a level with *extra-professional* quacks, he has himself to thank for the exposure.¹⁸⁷

Of course, the debate didn’t end there. In the next month, Toynbee and Yearsley took up a page in the correspondence section of the *Medical Times and Gazette* arguing about the “dangers” of the cotton-wool, even dragging an unnamed physician into the argument.¹⁸⁸

Aurists hesitantly chimed in the debates between Yearsley and Toynbee, finding the rivalry disconcerting, if not disgraceful to aural surgery. Peter Allen, who worked with Yearsley at the Sackville Institute and later succeeded Toynbee at St. Mary’s, referred to the rivalry as a “war of words [which] was carried on with an unseemingly bitterness.”¹⁸⁹ Other aurists who chose to contribute to the debate between Yearsley and Toynbee did so with a disclaimer of their intention,

¹⁸⁶ Yearsley, “The Artificial Membrana Tympani,” 615,

¹⁸⁷ Yearsley, *Controversy on the Artificial Tympanum*, v.

¹⁸⁸ “The Artificial Tympanum,” *Medical Times and Gazette* (9 January 1858): 21.

¹⁸⁹ R.S.S., “James Yearsley and the Metropolitan Ear, Nose, and Throat Hospital, 1838-1938,” *The British Medical Journal* 1 (February 1938): 464-465; 464. Annual Reports of the Metropolitan Ear, Nose & Throat Hospital, 1887. London Metropolitan Archives, H17/ENT/A/02/001.

as William Wright did: “I am not desirous, nor do I intend to, enter into the controversy between Mr. Yearsley and Mr. Toynbee, but wish to submit a few observations bearing upon the subject of a perforated or lacerated membrana tympani.”¹⁹⁰ Another practitioner, W.F. Cleveland, added “It is not my purpose to enter into the merits of the dispute between Messrs. Toynbee and Yearsley; but I have thought the following case...”¹⁹¹ suggesting that many practitioners did not view the debate as reflective of aural surgery, or damaging to its reputation, but rather a personal dispute between two men—who also happened to be neighbours.

MATERIAL EXPANSION: RESPONSES TO THE ARTIFICIAL TYMPANUM

Sometime in the mid-1860s, Toynbee began experimenting to devise a cure for tinnitus, a malady that plagued him for years. In *Diseases of the Ear*, he described case studies in which he applied leeches and syringing to treat patients complaining of “ringing” in the ears. In the summer of July 1866 he devised an experiment with chloroform and hydrocyanic acid, testing out whether inhalation of the vapors could pass through the Eustachian tubes and reach the cavity of the tympanum, and effectively treat the tinnitus. Toynbee made himself the willing subject, until his servant George Power found him in his office dead with a piece of cotton-wool over his nose and mouth on 7 July 1866. The room smelt strongly of chloroform and on a chair besides the couch, there was a watch, empty bottles, and two papers with handwritten notes: “The effect of inhalation of the vapour of chloroform for singing in the ears, so as to be forced to the tympanum,

¹⁹⁰ William Wright, “Perforation of the Membrana Tympani,” *Medical Times and Gazette* (Dec. 1857), 666.

¹⁹¹ W.F. Cleveland, “On Mr. Toynbee’s Artificial Membrana Tympani,” *The Lancet* 66 (17 November 1858), 474.

either by being taken in by the breath through a towel or a sponge, producing a beneficial sensation or warmth," and "The effect of chloroform combined with "hydocyanic acid."" The combination of chloroform and acid proved fatal.¹⁹² Three years later, on 12 July, Yearsley succumbed to liver cancer.

Following the deaths of Yearsley and Toynbee, aural surgery was on a far different platform than it ever was previously as the artificial tympanum captured the imagination of aurists. Commentaries on the artificial tympanum or "artificial drum-heads" did not widely emerge in publications until the 1870s, some even emerging within the wider context of the antiseptic movement.¹⁹³ There could be several reasons for this, including that aurists did not want to participate in a personal rivalry as long as Toynbee and Yearsley were alive or that aurists required time to test the device on their own patients. Nevertheless, the responses to Yearsley and Toynbee's respective artificial tympanums were generally favorable. Some practitioners, however, remarked the device was still experimental and cautioned in its use: "we must not be satisfied with a few trials with the cotton wool or disc, but we may have to re-apply it several times to

¹⁹² "Fatal Experiments by a Physician," *The Times* (Thursday 12 July 1866): 9.

¹⁹³ James Patterson Cassells, "Artificial Drum Heads," *The British Medical Journal* 2 (28 October 1876), 554; Lennox Browne, "Artificial Drum-Heads," *The British Medical Journal* 2 (4 November 1876): 587-588; C.E. Shoemaker, *The Ear: Its Diseases and Injuries and their Treatment* (Reading, P.A: B.F. Owen, 1879), 357-8; Charles H. Burnett, *Hearing, and How to Keep it* (Philadelphia: Lindsay & Blakiston, 1879), 88; Albert H. Buck, *Diagnosis and Treatment of Ear Diseases* (London: Sampson Low, Marston, Searle, & Rivington, 1881); Charles Frederick sterling, *The Diseases of the Ear and their Homoeopathic Treatment, with a brief outline of the Anatomy, Physiology and Pathology* (New York: A.L. Chatterton Publishing Company, 1885), 164-5; W. Laidlaw Purves, "On the true value of those aids to hearing usually termed artificial tympanic membranes," *The British Medical Journal* 2 (1 September 1888): 478-490; John Ward Cousins, "The Value of Artificial Drumheads," *The British Medical Journal* 2 (20 September 1890): 672-3; Charles Truax, *The Mechanics of Surgery* (Chicago, 1899), 799; James Kerr Love, *Diseases of the Ear: for Practitioners and Students of Medicine* (New York: William Wood and Company, 1905); John Ward Cousins, "New antiseptic artificial membrana tympani, with remarks on the treatment of perforation and other disorders of the middle ear," *The British Medical Journal* 2 (28 September 1889): 712-5; Charles Truax, *The Mechanics of Surgery* (Chicago, 1899), 799.

ascertain whether it improves the hearing or not.”¹⁹⁴ The German aurist Wilhelm Kramer also added the dangers of over-reacting to the power of a “miraculous” cure, explaining “we are clearly not in a position to deny the possibility of a radical cure, nor to advise the patient to resign himself calmly to the sad condition of complete deafness.”¹⁹⁵

The responses to the artificial tympanum allows us to trace the changing currents of aural surgery during the second half of the nineteenth century that was brought by more precise clinical regimens, pathological anatomy, and growing number of positions for aurists in hospitals and universities. Aurists testing the artificial tympanum viewed it as providing legitimacy for the field, for it worked when applied appropriately to cases. The more aurists demonstrated the artificial tympanum’s benefits for deafness caused by perforation of the eardrum, and the more it worked, the greater the credibility for the device and trust in the aurists’ care. The popularity of the artificial tympanum also raises question as to why patients were so willing to consent to experimental surgical tools. Sally Wilde makes the argument that the increasing popularity of surgery—and the introduction of more risky surgical procedures—had more to do with the confidence in the *possibility* of better surgical results, rather than the *actuality* of these results.¹⁹⁶

¹⁹⁴ Henry Macnaughton Jones, *A Practical Treatise on Aural Surgery* (London: J & A Churchill, 1878), 71.

¹⁹⁵ Wilhelm Kramer, *The Aural Surgery of the Present Day* Trans. Henry Power (London: The New Sydenham Society, 1863), 74.

¹⁹⁶ Sally Wilde, “Truth, Trust, and Confidence in Surgery, 1890-1910: Patient Autonomy, Communication, and Consent,” *Bulletin of the History of Medicine* 83.2 (2009): 302-330. “The theoretical possibility of safe surgery was as important as better practical results in contributing to increased willingness to operate. This, in turn, contributed to increasing surgical experience, which added its own positive effect to the outcomes from surgery” (303). On risk and responsibility of practitioners: Thomas Schlich and Ulrich Trohler (eds), *The Risks of Medical Innovation: Risk Perception and Assessment in Historical Context* (Abingdon & New York: Routledge, 2006); Claire Brock, “Risk, Responsibility, and Surgery in the 1890s and Early 1900s,” *Medical History* 57.3 (2013): 317-337.

The success of the artificial tympanum no doubt made aural surgery and its use of technological cures a more attractive option for deaf individuals than there ever was in the decades past.¹⁹⁷

This confidence in the artificial tympanum's ability to restore hearing is evident from Yearsley and Toynbee's declarations that patients should eventually learn how to manage the device themselves. The users were not only more dexterous in applying the artificial tympanum, but also more capable of adjusting it for a proper fit to enhance hearing. W.B. Dalby, for instance, observed that "[a]fter a few attempts the patient soon learns to adjust it, and, when he has had a little practice, can direct it to the exact spot requiring pressure far more readily than anyone can do for him."¹⁹⁸ The anecdote reflects Stuart Blume's argument that users often make adjustments to the device(s) worn on their bodies, even if under surveillance by a medical practitioner, to bring the technology "into better alignment with their reading of their own bodies, with how they want to live, or with the image they want to project."¹⁹⁹ The deaf certainly played a pivotal role as shapers, adaptors, and manipulators of their technologies, communicating to the aurist the advantages and/or disadvantages of the materials, fittings, or even designs.²⁰⁰

To emphasize the effortless use of the artificial tympanum, some aurists drew an analogy to eyeglasses, even referring to the device as "ear spectacles."²⁰¹ J.M. Churchill, for instance, remarked: "When we reflect on the economy of the eye, and on the benefits derived from the mere use of glasses, does it not appear possible that dullness of hearing, and some cases of deafness,

¹⁹⁷ Esmail, *Reading Victorian Deafness*.

¹⁹⁸ W.B. Dalby, *Lectures on Diseases and Injuries of the Ear* (London: J&A Churchill, 1885), 150.

¹⁹⁹ Blume, *Cochlear Implant*, 13.

²⁰⁰ Trevor Pinch and Nelly Oudshoorn (eds), *How Users Matter: The Co-Construction of Users and Technology* (Cambridge: The MIT Press, 2005).

²⁰¹ Erhard, quoted in Kramer, *The Aural Surgery of the Present Day*, 76.

may be relieved by the employment of an acoustic apparatus?"²⁰² The device was relatively easy to apply, as Urban Pritchard explained:

Some patients manage in one or two lessons to apply this artificial aid more perfectly than the surgeon himself, while others will require to be shown a great many times. The ear will not always bear the presence of this foreign body without considerable irritation, therefore the patient should be cautioned not to wear the wick more than a few hours a day at first, gradually increasing the time until it can be worn all day long. But it is rarely advisable to leave it unchanged for more than 24 hours, and the best plan, perhaps, is to put a fresh one every morning and take it out altogether at night.²⁰³

In the reading of their bodies and the wearing of the technology, patients were able to make modifications. Describing the case of a patient who he recommended to visit Toynbee to be fitted for an artificial tympanum, W.F. Cleveland narrated how the patient "found from experience that it is better to take out the membranes at night before going to bed, wash them, and let them dry, rather than leave them in water, as recommended by Mr. Toynbee." According to the patient, her method allowed the rubber of the artificial tympanum to retain the elastic better, and do not "decay or become detached [from the silver wire] so soon," a finding she discovered through experience.²⁰⁴ T. Mark Hovell echoed Pritchard's statement, explaining that because the artificial tympanum requires constant cleaning or replacement, it was best to remove it at night, and thus imperative for the patient to learn the proper approach for removing and inserting the device.

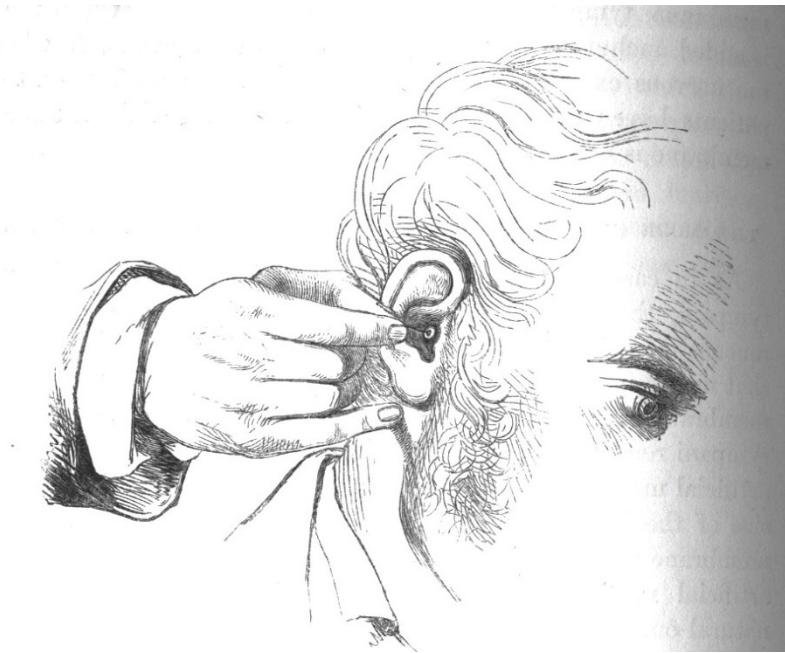
²⁰² J.M. Churchill, "Mr. Toynbee on Deafness," *Medical Times and Gazette* (1853): 281.

²⁰³ Pritchard, *Handbook of Diseases of the Ear*, 150.

²⁰⁴ Cleveland, "On Mr. Toynbee's Artificial Membrana Tympani," 474.

Moreover, once the patient got the hang of application, they “soon find out the best position for the pellet and the exact amount of pressure which renders it effective.”²⁰⁵

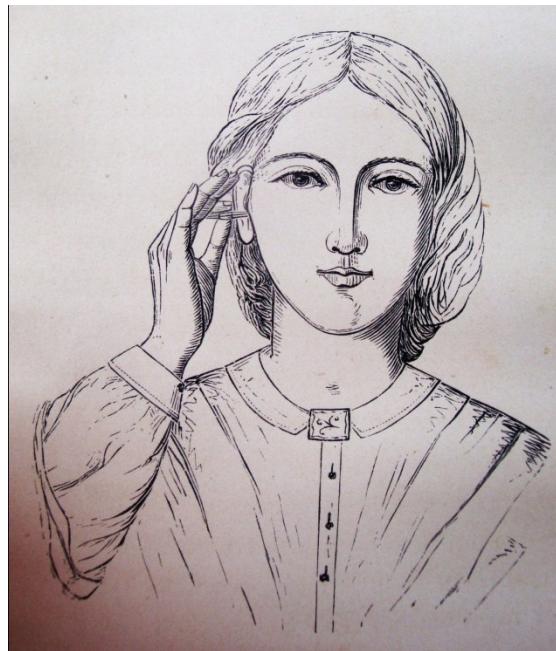
As aurists often published reports of their case studies in their publications, with the name, age, and sometime addresses for authenticity, these reports provide some insight into how success of the device was defined. Many of the patients in the case studies were individuals who lost their hearing due to disease, illness, or accident, and some were deaf for several years, while others only for several days or months before receiving treatment. Toynbee described 43-year old Peter Turnbull who was admitted to St. Mary’s Hospital on 12 January 1852 after being discharged from the army after a consistent cold damaged his tympanic membranes. Upon being fitted for an



*Image 24: Aurist inserting Toynbee’s Artificial Tympanum. From Joseph Toynbee’s *Diseases of the Ear* (1860).*

²⁰⁵ T. Mark Hovell, *A Treatise on the Diseases of the Ear, including the anatomy and physiology of the organ* (London: J&A Churchill, 1894), 429.

Expertise and the Artificial Tympanum



*Image 25: Patient inserting Yearsley's Artificial Tympanum. From James Yearsley, *Deafness Practically Illustrated*, 6th Edition (1866).*



*Image 26: Patient inserting Yearsley's Artificial Tympanum. From Thomas Barr, *Manual of Diseases of the Ear* (Glasgow, 1896).*

artificial tympanum, Turnbull returned to the army.²⁰⁶ Patients also testified how the artificial tympanum made it possible for to hear the organ or sermons at church, urban din, to be able to converse, and hear sounds in the distance. Many described the new sensation as having altered their character.

Interestingly, aurists also measured the success of the device not by patient testimonials, but also based upon empirical tests. George P. Field, aural surgeon at St. Mary's Hospital, used the distance the ticking of a watch can be heard from the ear—a common nineteenth-century testing method—to measure the improvement of hearing with the use of an artificial tympanum. A 26 year old clerk, for instance, had a large perforation in his right ear and a minor one in his left; on the right, he could not hear the watch, even on contact, and on the left, he heard it at a distance of 1inch. With Toynbee's artificial tympanum, hearing in the right side increased 7inches, while the cotton-wool had no effect. In the left side, Yearsley's cotton-wool was more effective than Toynbee's. The dilemma apparently encouraged Field to prescribe his own combined artificial tympanum: innovation by merging the best features of Toynbee's and Yearsley's artificial tympanum: two rubber discs sandwiched by cotton and a thin silver wire running through them.²⁰⁷ With this device, the clerk could finally hear sermons, a benefit previously denied to him: his hearing increased to 18inches while wearing the device. German aurist Hermann Jakob Knapp

²⁰⁶ Toynbee, *Diseases of the Ear*, 169-70. Toynbee adds: "As proof of the great amelioration that has taken place, this patient told me, that one day, while in the country, and using the membrane, he heard voices at a distance, and upon going to the place whence they appeared to proceed, he found some boys under a hedge, more than a field distant from the spot where he heard them."

²⁰⁷ George P. Field, *Aural Surgery: A Treatise on the Curable Forms of Ear Disease* (London: Henry Renshaw, 1876), 92. Field's illustration of a perforated membrane is also striking—in his second edition of *Diseases of the Ear* he simple punctures the page.

(1832-1911) also documents his hearing tests to determine hearing loss before and after employment of the artificial tympanum, using an audiophone and a “dipper” trumpet.²⁰⁸

Patient testimonials also provided aurists some weight into what aspects of the artificial tympanum worked or didn’t work. The silver wire tube of Toynbee’s, for instance, was eventually replaced by a tube of India-rubber after too many patients complained of irritation. The increase in textbooks on aural surgery that followed from 1870s also discussed the pros and cons of the two versions of the artificial tympanum, with a general consensus that either version was effective. Many of the views of aurists were an exercise in correction and improvement in the original design, rather than original invention. Practitioners such as James Keene and J.P. Pennefather did acknowledge the advantage of Yearsley’s method resided in its simplicity. Pennefather in particular, remarked: “I have found the application of cotton wool more satisfactory in improving the hearing power, and where the patient is not unusually stupid or awkward there is little difficulty in its self-application. In children, if such a remedy be used, Toynbee’s artificial tympanum is preferable.”²⁰⁹ However, he doesn’t say why Toynbee’s is more preferable in children, though one can speculate the construction of Toynbee’s device allowed children to remove it easier. A J. Nelson of Belfast made an analogy with eyesight and refraction

²⁰⁸ H. Knapp, “The Cotton-Pellet as an Artificial Drum-Head,” *Archives of Otology* 10 (March 1881): 60-69. The “dipper” trumpet was one of the most high-powered hearing trumpet at the time, measuring 16.5in length, and 5in in diameter with a dome 4in high. Audiophones were bone conduction devices in which a patient would bite the instrument in order to hear the vibrations. Audiograms and tuning forks were also used in the late nineteenth-century for measuring hearing. A study of hearing aid instruments as diagnostic testing is beyond the scope of this dissertation. Mara Mills has already looked at audiograms: Mara Mills, “Deafening: Noise and the Engineering of Communication in the Telephone System,” *Grey Room* 43 (2011): 118-143.

²⁰⁹ J.P. Pennefather, *Deafness and Diseases of the Ear: Their Causes and Treatment* (London: Bailliere, Tindall, and Cox: 1873), 92.

in children, emphasizing that “the sooner artificial aids could be applied to the ear, the better for the hearing.”²¹⁰

James Hinton (1822-1875), who was a close friend of Toynbee’s, applied both methods in his patients, but noted “in the majority of cases I give the decided preference to the cotton wool, which he moistens in a solution of sulphate of zinc in glycerine and can be worn a week without changing; if water is used, it usually dries up quickly.”²¹¹ He further insisted that no case of perforation should be abandoned until every form of artificial tympanum has been tried. Thomas Barr added:

The use of the cotton has the following advantages over Toynbee’s artificial membrane. 1. It is softer and excites much less irritation. 2. It is a convenient medium in applying astringents or other medicaments to the interior of the ear. 3. It does not cause disagreeable noises to the interior of the ear during chewing, as does the wire of Toynbee’s membrane. And 4. It is not visible at the orifice of the ear.”²¹²

However, Barr acknowledges the “test of experiment” in patients is the only guide in determining which version of the artificial tympanum works best. A similar sentiment is echoed by D.B. St. John Roosa who pointed out without clinical trials, it was impossible to determine whether the artificial tympanum could actually improve hearing. The highest commendation for Toynbee’s device derived from German aurist Anton Von Tröltsch (1829-1890), who declared Toynbee’s as the best artificial tympanum—although he later abandoned the device in favor of an improved cotton-wool

²¹⁰ Quoted in Thomas Barr, “Practical Observations on the value of the cotton-pellet (Yearsley’s artificial tympanic membrane) as an aid to hearing,” *The British Medical Journal* 2.1189 (13 October 1883): 722-723.

²¹¹ James Hinton, *The Questions of Aural Surgery* (Henry S. King & Co., 1874), 190.

²¹² Thomas Barr, “Practical Observations on the value of the cotton-pellet (Yearsley’s Artificial Tympanic Membrane,” *The British Medical Journal* 2 (13 October 1883): 722-3; 722.

method.²¹³ Others, like David Hayes Agnew (1818-1892) (re)examined the function of the artificial tympanum, devising new theories about sound resonance, bone conduction, and the anatomical function of the ossicles.²¹⁴ In terms of whose artificial tympanum is better, J.M Churchill expressed “It remains to be proved who is right.”²¹⁵

The artificial tympanum was thus an extraordinary contribution to the field of aural surgery and its attempts at legitimacy. Not only did it absorb the rhetoric of “medical science” prevalent in the 1850s, but by being based upon strict grounds of expertise, it allowed for aural surgery to pave a new, more secure path for itself. For instance, Adam Politzer (1835-1920), the eminent Austrian aural surgeon, published a remarkable study on the tympanic membrane, advancing Toynbee’s dissections with careful and detailed clinical cases, supplemented with twenty-four chromo-lithographs in his publication.²¹⁶ As aurists became familiar with the benefits of the artificial tympanum, and its shortfalls (i.e. in some instances it could cause excessive suppuration or irritation), they also began making modifications to it, either in its construction, or in the use of medicines to aid in its insertion. It remained the consensus among aurists that the artificial tympanum should *only* be used in cases where the integrity of the tympanic membrane was compromised. A minor group of aurists, however, such as John Ward Cousins, senior surgeon

²¹³ Anton von Tröltsch, *The Surgical Diseases of the Ear*. Trans. James Hinton (London: The New Sydenham Society, 1874), 63. As mentioned by H. Knapp, “The Cotton-Pellet as an Artificial Drum-Head,” *Archives of Otology* 10 (March 1881): 60-69; 62.

²¹⁴ Agnew explained that the artificial tympanum does not improve hearing by closing the aperture of the eardrum, but rather by applying pressure to the labyrinth through the connection with the stapes, the smallest bone in the ear. David Hayes Agnew, *The Principles and Practices of Surgery: Being a Treatise on Surgical Diseases and Injuries, Volume 3* (Philadelphia: J.B. Lippincott & Co., 1883), 329.

²¹⁵ J.M. Churchill, “The Artificial Membrana Tympani,” *Medical Times and Gazette* (1853), 408.

²¹⁶ Adam Politzer, *The Membrana Tympani in Health and Disease*, trans. By A. Mathewson and H.G. Newton (New York: Wm Wood & Co., 1869).

to the Royal Portsmouth Hospital, claimed it could assist in other abnormalities in the membrane tympani, including chronic middle ear diseases brought by damages to the ossicles.

Lennox Browne (1841-1902), the founder of the Central London Throat and Ear Hospital discovered that the “firmer the wool is applied the better the support,” because it was better able to place pressure on the staples, necessitating sound conduction.²¹⁷ Field also explained the advantage of his combined version was that it does not irritate as Toynbee’s silver wire does, the cotton is extra absorbent, and is easily used—moreover, the “hearing distance is improved.”²¹⁸ The German Arthur Hartmann (1849-1931) also created a new version of Yearsley’s cotton-wool, by twisting the pellet into a ball and wrapping it a thread, and dipping the entire thing in a solution of wax.²¹⁹ Urban Pritchard (1845-1925), demonstrator of practical physiology at King’s College, London, makes mention of the “wick,” a modification of Yearsley’s, noting that with every form of artificial tympanum, there is “always considerable difficulty in the application and removal” of it.²²⁰

Minor modifications include replacing the wire of Toynbee’s disc with a thread or lint instead of India-rubber. Tröltsch points out the silver wire of Toynbee’s tympanum can produce a “very harassing noise in the ear,” often while the user is wearing it while eating, and suggests J.C. August Lucae’s (1835-1911) idea to replace the silver wire with an India-rubber tube about 1” long and 2mm in diameter; the advantage of this modification is that it was far less irritating,

²¹⁷ Lennox Browne, “Artificial Drum-Heads,” *The British Medical Journal* 2.827 (4 November 1876): 587-8. On Browne, see: Glenice Gould, “A History of the Royal National Throat, Nose, and Ear Hospital, 1874-1982,” *The Journal of Laryngology and Otology Supplement* 22 (April 1998), especially the chapter “The Years of Lennox Browne (1874-1902), 10-25.

²¹⁸ Field, *Aural Surgery*, 93.

²¹⁹ T. Mark Hovell, *A Treatise on the Diseases of the Ear including the Anatomy and Physiology of the Organ* (London: J&A Churchill, 1894), 428.

²²⁰ Urban Pritchard, *Handbook of Diseases of the Ear for the Use of Students and Practitioners* 2nd Edition (London: H.K. Lewis, 1891), 147-149.

cheaper, and more durable than Toynbee's original creation.²²¹ Thomas Barr remarked that the solutions used for the cotton-wool, which is generally preferred to the India-rubber disc, can vary depending on the patient. Cotton may be used dry when intended to soak up moisture in the ear, but he preferred to soak his in glycerine or with Vaseline, with the cotton in the form of a ball or disc-shaped.²²² John Ward Cousins lists a variety of modifications, including: Laurence Turnbull's cotton-ball attached to thread and a disc of adhesive plaster of gauze, C.M. Thomas's disc of oil silk, Adam Politzer's India rubber tube, and Walker Downie's circular patch of pellicle of egg, H.B. Richard's cylinder of gold, Dr. Michael's glycerine thickened with tannin, Dr. Farquhar's plug of boracic acid powder, C.J. Blake's disc of sized paper, and Cousin's own hat-shaped membrane.²²³

Throughout the literature on aural surgery discussing the artificial tympanum, it is apparent that aurists accepted the device as a remedy for perforations. A letter from B. Ellis to an unknown recipient, for instance, discusses a patient and mentions the use of the cotton-wool to aid in "deadening objective sounds."²²⁴ Discussions of how it functioned, the advantages and disadvantages of various types, and explanations of material superiority were all mentioned in the publications. The artificial tympanum was accepted because it *worked*, it could provide patients with hope and extend the aurist's surgical authority. As Chu and Jackler explain, at the height of its

²²¹ Tröltsch, *The Surgical Diseases of the Ear*, 63.

²²² Thomas Barr, "Practical Observations on the value of the cotton-pellet (Yearsley's artificial tympanic membrane) as an aid to hearing," *The British Medical Journal* 2.1189 (13 October 1883): 722-723.

²²³ John Ward Cousins, "New Antiseptic Artificial Membrana Tympani, with remarks on the treatment of perforation and other disorders of the middle ear," *The British Medical Journal* 2.1500 (28 September 1889): 712-715. Cousins' material was composed of compressed cotton fiber swollen by prolonged immersion and saturated in an antiseptic oil and ether.

²²⁴ Letter from B. Ellis to Unknown Recipient, concerning a patient and mentioning an instrument designed by Edward Woakes (1837-1912) 1 November 1881. Wellcome Library Archives & Manuscripts, MS.8007/49.

popularity, the use of the artificial tympanum by aurists was not contested.²²⁵ Numerous clinical trials testified to that, though some aurists cautioned the overuse of these devices or its careless application.²²⁶

CONCLUSION

The artificial tympanum is a testament to Yearsley and Toynbee's attempts to redefine aural surgery under the rhetoric of "medical science." It produced the kind of credibility that was believed to be beneficial for legitimacy: using detailed clinical cases, pathological anatomy, and the creation of new technologies to pave the path towards standardization. As a surgical instrument, the artificial tympanum gave credence to aural surgery's claims to legitimacy not only because it was declared effective in a specific group of aural disorders, but because its construction was based upon the application of empirical studies, providing guidelines for other aurists to replicate. Though it provided a "cure," in no sense did aurists consider the cure "miraculous." In fact, they were very selective about patient selection and often watchful over its use and progress in patients. At the same time, the device was also an assistive technology, a prosthetic for the deaf whose intellectual curiosity mixed with personal hopes perhaps guided their selections in emporiums such as F.C. Rein's shop on Strand Rd., London.

In the 1880s and 1890s, commentaries on the value of the artificial tympanum were discussed with extensive scrutiny in the pages of medical journals. In the *British Medical Journal*, for instance, a commentator asked "Was the artificial tympanum a blessing or a curse? Might they

²²⁵ Chu and Jackler, "The Artificial Tympanic Membrane," 513.

²²⁶ John Ward Cousins, "The Value of Artificial Drumheads," *The British Medical Journal* 2.1551 (20 September 1890): 672-3.

not, failing to cure some of their patients, at least endeavour to save them from imposition and fraud by exposing the nefarious schemers who lay in wait for them?"²²⁷ Certainly the device fit with other late nineteenth-century technologies such as Alexander Melville Bell's (1819-1905) Visible Speech or sound technologies that advocated the promise deafness was something to be measured, quantified, and technologically cured.²²⁸ The artificial tympanum certainly carried this promise. It also gave tremendous credibility to the work of aural surgery, elevating it from the threshold of quackery and producing a more respectable reputation for aurists. However, as with any ingenious device in the field, it eventually fell into disuse, particularly as newer, more dangerous versions were marketed and sold. In the United States, the artificial tympanum became synonymous with quackery despite British intentions, showcasing a remarkable circular path of the device's historical beginnings.²²⁹

Moreover, the decline of the usage of the artificial tympanum also coincided with an increase in complicated surgical procedures, including twentieth century grafts that deemed prosthetics for perforation unnecessary.²³⁰ Aurists also saw the artificial tympanum, the pathological focus laid out by Toynbee, and the skilful defense presented by Yearsley, as indicators the field was unifying itself as a surgical specialty. They held an optimistic stance for the prowess

²²⁷ W. Laidlaw Purves, "On the True Value of those aids to Hearing usually termed Artificial Tympanic Membranes," *The British Medical Journal* 2 (1 September 1888): 478-490; 489.

²²⁸ On Visible Speech: Johannes Fehr, "'Visible Speech' and Linguistic Insight," In Helga Nowotny and Martina Weiss (Eds), *Shifting Boundaries of the Real: Making the Invisible Visible* (Zurich: Hochschulverlag AG, 2000), 31-47

²²⁹ For instance, during the early twentieth-century, the U.S. Bureau of Standards investigated on behalf of the interests of deaf population, to protect them against exaggerated claims of "deafness cures" and sales at exorbitant prices. In 1912, the Bureau published a pamphlet on "Deafness Cures: as part of its *Nostrum Evil & Quackery* series to dispel all manufacturers of disrepute. The artificial eardrum was categorized as the worst of all quack curers, at the same level of snake oil. Thanks to Mara Mills for drawing my attention to this. For more, see Mills, "When mobile communications technologies were new."

²³⁰ Matthew R.B. Farr, Ranit De, and Richard M. Irving, "History of Otology: Cautery of the Tympanic Membrane: The Lesser Known History of Myringoplasty," *Otology & Neurotology* 33 (2012): 270-276.

of their field, echoing William Harvey's declaration that "It is to be hoped the time will come when these ingenious devices will no longer be needed, and when by the skilful interference of the surgeon the occurrence of these sources of deafness will be prevented to a great extent, or if not prevented, that the perforation will be closed early by judicious treatment."²³¹

²³¹ William Harvey, *The Ear in Health and Disease* (London: Henry Renshaw, 1865), 200.

CONCLUSION

CONFIRMING LEGITIMACY: THE DECLINE OF THE “POPULAR PREJUDICE”

“It is only of recent years that the progress of aural surgery has reached such a point as to attract young surgeons of good abilities and prospects to devote their lives to its practice...looking back twenty-five years, when I was beginning to work at our speciality, the contrast is very striking.”¹

Reporting the statistics of employment as given in the 1841 census returns, *The Times* questioned the “striking” fact that only one “aurist” was accounted for in the summary of returns.² The actual 1841 census of Great Britain, however, lists 28, 797 individuals as belonging to the medical profession, of which only 4 are categorized as an “aurist.”³ The 1851 census also lists only 4 “aurists,” with only one individual under 20 years of age.⁴ “Aurist” does not appear in any other census reports from 1861-1891, presumably due to the reorganization of medical classifications following the Medical Act of 1858.⁵ The census reports are another indicator of the ambiguous

¹ William Dalby’s Inaugural Presidential Address, *Transactions of the Otology Society of the United Kingdom* vol. 1. First Session, 1899-1900 (London: J & A Churchill, 1900), 3.

² “Statistics of Employment,” *The Times* issue 18702 (30 Friday August 1844), 5.

³ Census of Great Britain, 1841, *Abstracts of answers and returns made pursuant to the 3rd and 4th Victoria, c.99, and the 4th Victoria, c.7 for taking an account of the population in England, Wales, and Scotland—Occupation Abstract, 1841*, VI Professional, 56.

⁴ Census of Great Britain, 1851, *Forms and instructions prepared under the direction of one of her majesty’s principal secretaries of state, for the use of the persons employed in taking an account of the population of Great Britain, by virtue of the act of 13 and 14 Victoria, cap.53 [1339]: Population Tables II* vol. 1 Table 53, cxxi.

⁵ Many thanks to Isabel Trevenna of the UK Office of National Statistics for drawing my attention to this point and verifying the census reports. The passage of the Medical Act introduced two prominent changes to the medical occupation: (1) it created a distinct occupational category of “legally qualified Medical Practitioner,” that categorized a large percentage of the occupation as “general practitioners;” and (2) it set up a general medical council to monitor standards of training, qualification, and certification. Despite the

characterization of the term “aurist,” even by those who asserted themselves as surgical ear specialists; many aural practitioners likely categorized themselves under the heading of “surgeon,” even if in their writings and daily practice they referred to themselves as “aurists.”

Looking through a variety of printed and manuscript sources, including newspapers, correspondence, and publications, this dissertation has shown that the word “aurist” was a panoramic term to describe *all* practitioners who provided treatments for aural diseases, particularly during the first half of the nineteenth century. In addition, these sources reveal that the distinction between the “qualified aurist” and the “quack aurist” was, at times, constructed as part of practitioners’ intra-professional competition, used to disqualify an adversary or competitor. Moreover, as aurists constructed different expectations for their surgical authority and specialist identity, the distinction was often redefined and re-categorized throughout the nineteenth century. John Harrison Curtis, as Chapter Two has shown, was heralded by London society as the “Prince of Ear Diseases” for being the first to popularize the medical necessity of treating deafness; yet, Curtis’ contemporaries criticized his surgical skills, even accusing him of plagiarism. For aurists, much of their surgical identity and authority relied on their professional credibility as well as their surgical competence: a skilled aurist, as William Wright asserted, was one who rooted his work on the “true science” of medicine.

Different rhetorical claims, including the rhetoric of “popular prejudice” and “medical science” invoked particular representations of how aurists wanted to construct their surgical identity and be perceived by the broader medical community and society. These rhetorical guises allow us to trace the tensions, negotiations, and boundary-formations of aurist in order to frame a

agenda of reformers, the Act did not criminalize quackery. See: M.J.D. Roberts, “The Politics of Professionalization: MPs, Medical Men, and the 1858 Medical Act,” *Medical History* 53.1 (2009): 37-56.

richer historical account of the process of specialization. Part of aurists' claims for legitimacy derived from their attempts to discredit the "popular prejudice," which came in two forms: (1) intra-professional disagreements about the physiology of aural diseases and treatments, due to lack of specialized training and surgical consensus, and (2) social resistance against medical and surgical claims on the curability of deafness. The social resistance, as Chapter One narrates, was rooted in diverging claims about dealing with the "problem of deafness," as educators declared deafness was only cured through charitable and educational endeavours to elevate the position of the deaf in society. As Chapter One demonstrated, in the early part of the nineteenth century, it was difficult for aurists such as Curtis and Wright to inspect the ears of children at the London Asylum, for the "popular prejudice" left medical and surgical experimentation without any institutional support. Yet, Curtis and Wright did not oppose educational endeavours, but rather saw education, social reform, and medical intervention for the deaf as being necessarily intertwined.

Many of the developments in aural surgery were a resistance against the "popular prejudice," as aurists negotiated and re-negotiated the boundaries of their expertise—or, at the very least, what expertise meant to them. Implementing the rhetoric of "medical science" was a powerful strategy for aurists to outline the boundaries of their speciality and differentiate themselves from the "quack aurists." As outlined in Chapter Three, vociferous disagreements among aurists regarding Eustachian tube catheterization led some aurists to defend the procedure's effectiveness because they saw it as forming the methodological basis of aural surgery. The rhetoric of "medical science" was also used to construct authority through instrumentation during the 1840s and 1850s, as aurists attempted to transform their speciality not only by closer and more precise observations—whether clinical or anatomical—but also by

highlighting the scientifically sound aspects of their instruments and procedures. The Eustachian tube catheter (Chapter Three), Curtis' cephaloscope (Chapter Four), and the artificial tympanum (Chapter Five) are all indicators of how aurists used technological innovation to stress the importance of expertise in their claims for legitimacy. The artificial tympanum in particular, by being the first technological apparatus devised by aurists to effectively "cure" deafness—though a specific type of deafness—afforded aurists a kind of expertise and credibility that was previously unknown. The development of the device, by employing "scientific" methods of investigation, provided aurists a means for creating a provision of care and treatment, one which would encourage collaboration and unification—the hallmarks of a speciality—that would be carried towards the end of the nineteenth century.

In addition to revealing attitudes about expertise and legitimacy, the boundary negotiations of aurists suggest how entrepreneurial trends emerged within a medical marketplace. The Royal Dispensary, for instance, was a reflection of the British entrepreneurial nature that was present in the establishment of numerous charitable institutions. The Dispensary merged philanthropy with fashion and social reform, and in doing so, appealed to aurists' demands for a surgical speciality. As Chapter Two has shown, the popularity of the Dispensary owed largely to its fashionable ties to the aristocracy and social functions; but it also allowed Curtis to self-fashion himself as a practitioner aware of the social welfare of deaf individuals. Not only did the self-fashioning promote Curtis' surgical skills and popularize the necessity of the Dispensary, but it drew attention to the invalidity of the "popular prejudice." Aurists could thus demand a greater jurisdictional control over care and cure of deafness within the medical market, promoting and advertising a variety of aural treatments. Not all aurists agreed on advertising, however; Wright was severely critical of "unfounded" and empty claims. And, as Chapter Five

mentioned, Joseph Toynbee's dismissal of James Yearsley's patenting of the artificial tympanum shows how some aurists in the second half of the nineteenth century criticized the prevalence of advertisements as self-promotions.

From the 1830s onwards, aurists attempted to distance themselves from "quack aurists" by aligning themselves to medical reform campaigns. The inquest into Joseph Hall's death demonstrated that aurists saw a pivotal impetus for overhauling their field's reputation of quackery. These aurists saw it necessary to protect both their speciality and the public from practitioners such as Alexander Turnbull, who undermined the communal quest for surgical identity. Curtis and Yearsley argued specialization could only be secured through surgical consensus in diagnosis and treatment; at the height of medical reform campaigns during the 1840s and 1850s, this issue was perhaps more critical to their claims for legitimacy than ever before.⁶ However, as Chapters Four and Five have shown, the move towards surgical consensus was a complex one, rife with intra-professional rivalries and fraught with diverse approaches for treating similar diseases. Yearsley and Toynbee, though they both treated perforations of the eardrum with a prosthetic, had drastically different methods for doing so, based on their own empirical expertise.⁷ Even Curtis' cephaloscope could not provide a standard for diagnosis. Nor did the rally for surgical consensus mean accusations of quackery disappeared. In his 1858

⁶ Aurists even took part in the reform debates. Toynbee, for instance, addressed the hot-button topic of medical fees, writing to the *British Medical Journal*: "Sir—As I have lately taken part in a discussion on the subject of the physician's and surgeon's fee, permit me, if you please, through the medium of your Journal, to say that I think the ordinary fee of a guinea *is* an ample fee in *ordinary* cases, even when the patients are seen for the first time. My view is, that in some cases, very long consultations, for instance, the medical man ought to be at liberty to name a higher fee than a guinea." Joseph Toynbee, "Medical Fees," *British Medical Journal* 1 (16 January 1858), 57.

⁷ Steve Sturdy, "Looking for Trouble: Medical Science and Clinical Practice in the Historiography of Medicine," *Social History of Medicine* 24.3 (2011): 739-757.

publication on fishing, William Wright paused to castigate “quack aurists” from the early years of his career.⁸

Aurists argued for newer therapeutics to replace older, ineffective, and traditional remedies.⁹ The increased proficiency of aurists’ treatments and their greater professional credibility and surgical authority enabled a degree of trust that was previously unaffordable to them.¹⁰ Claims of specialized surgical skills, refined treatments, and precise instrumentation enabled aurists to dominate control over their jurisdiction, redefining their expertise and asserting control over the bodies of the deaf. Toynbee’s position at the London Asylum for the Deaf and Dumb in the 1850s exemplified the changing currents not only in the pedagogy of deaf education, but also the relationship between educators and aurists. Moreover, aurists argued that surgical consensus relied on the necessity of brethren, rather than individual “gentlemen” or “social climbers” as was the case in aural surgery during the 1820s and 1830s. This notion is especially evident in how established aurists trained and mentored young candidates to take over esteemed hospital positions, creating avenues for collegiality.¹¹

This does not mean, however, that older remedies disappeared, or that those considered as “quack aurists” escaped from the fold. An example is found in a letter from V. Walbram Chapnnam to John McKinna, the secretary for the Metropolitan Ear, Nose, and Throat Hospital, which

⁸ William Wright, *Fishes and Fishing: Artificial Breeding of Fish, Anatomy of their Senses, Their Loves, Passions, and Intellects* (London: Thomas Cautley Newby, 1858); John Picker, *Victorian Soundscapes*, 10.

⁹ Brockliss and Jones, *The Medical World of Early Modern France*.

¹⁰ David Harley, “Rhetoric and the Social Construction of Sickness and Healing,” *Social History of Medicine* 12.3 (1999): 407-435.

¹¹ James Hinton (1822-1875) was trained under Toynbee at St. Mary’s. He eventually became the first Aural Surgeon to Guy’s Hospital, though an aural department existed under the care of a general surgeon since 1826. Peter Allen, who had been an assistant to Yearlseay at the Institute for Curing Diseases of the Ear, carried forth Yearsley’s views on the importance of catheterization to St. Mary’s Hospital, where he replaced Toynbee as Aural Surgeon. Neil Weir, *Otolaryngology: An Illustrated History* (London: Butterworths 1990).

enclosed a letter from self-styled “Aural Specialist” Herbert Clifton. Clifton wrote a publication entitled *Deafness, Noises, and Giddiness of the Head*, which was perceived by many aurists as being nothing more than an advertisement for a scrupulous charlatan’s practice. Chapnnam dismissed the pamphlet as nothing but “a tissue of boastful pretensions to medical skill...written & published by a person who has not any qualifications in law, to practise in any way.”¹² A review of textbooks and articles on aural surgery from the 1860s onwards also suggests how aurists maintained a dialogue on the importance of identifying “quack aurists” The first volume of *Transactions of the Otological Society* (1900) for instance, outlines how aurists debated the merits of treatment for tympanic membrane perforation and mastoid operations, raising concerns about the dangerous applications of these procedures as undertaken by unskilled practitioners. These sources also indicate how aurists were beginning to specialize in particular aspects of diseases of the ear. Mastoid operations, catarrh treatment, and laryngoscopy, dominated surgical procedures. Many of these procedures coincided with specialized departments for aurists, where they were able to apply clinical acumen and pathological anatomy to increase their empirical understanding of a particular aspect of the ear and its diseases.

Professional jealousy and rivalry remained a hot-button issue for aurists striving for surgical consensus, even during the closing years of the nineteenth-century. Sir William B. Dalby’s (1840-1918) 1899 Presidential Address at the first ordinary meeting of the Otological Society of the United Kingdom expressed the importance of a unified speciality. Dalby testified

I venture to predict that this Society has a great future before it. Since that it comprises amongst its members of all the aural surgeons attached to Metropolitan Hospitals and very

¹² Letter from V. Walbram Chapnnam to John McKinna, 8 April 1908. London Metropolitan Archives, Correspondence of Metropolitan Ear Nose & Throat Hospital, H17/ENT/Y/01/002.

nearly all of the Provincial Hospitals, as well as that of Scotland and Ireland, it cannot fail to succeed and exercise a very important influence on the progress of British Aural Surgery; for it will represent year by year the work of the aural surgeons, and will record it.¹³

He added in order to elevate the reputation of aural surgery, aurists had to be intolerant of all forms of intra-professional rivalry, and to rest “feeling[s] of jealousy.”

Dalby’s address indicates the extent to which aural surgery has been transformed since the 1870s. As he explained, prior to the 1870s, only a handful of aurists were appointed to London hospitals and the “public had not learned to apply for aural surgery, except at one well-known institution [the Royal Dispensary]; the bulk of patients went for treatment and cures to those who professed to treat and cure, and confirmed themselves to professing, for there was nothing beyond.”¹⁴ By 1900, the number of positions for aurists in hospitals increased: William Laidlaw Purves (1843-1918) took over Hinton’s position; James Keene (1833-1883) was appointed aural surgeon at Westminster Hospital; William Bartlett Dalby (1840-1919) was appointed the first aural surgeon to St. George’s Hospital and advocated lip-reading for the deaf; Urban Pritchard (1856-1926) founded the department of aural surgery at King’s College Hospital in 1876 and was created Professor of Aural Surgery at King’s College in 1886, the first chair of its kind in England; and Arthur Cheatle (1867-1929) worked with Pritchard as his Assistant Surgeon, and later they both held appointments at the Royal Ear Hospital (est. 1874). With increased positions, publications, and exchanges of information came the formation of societies and journals.¹⁵

¹³ *Transactions of the Otological Society of the United Kingdom* 1 (1900): 1-2.

¹⁴ Ibid.

¹⁵ Though the American aurists formed a society in 1868, and the Germans in 1881, Urban Pritchard and Arthur Cheatle did not establish the Otological Society of Great Britain until 1899. Seven years later the Society would become the Section of Otology of the Royal Society of Medicine. William Dalby was the first President of the Society; Pritchard, Thomas Barr and George served as vice-presidents, Alphonso Elkin Cumberbatch as treasurer, Edward Creswell Baber as librarian, Charles Alfred Balance and Cheatle as

The shift in how aurists articulated their vision of a specialist identity throws light on how nineteenth-century medical specialties were dynamic and constantly changing, recasting their identities and activities at regular intervals within certain cultural parameters. Toynbee's access to bodies due to his position at the Hunterian Museum reveals the extent to which regulations over corpses and the process of dissection were closely related.¹⁶ As George Weisz has argued, many specialisms gained their initial and primary justification as practitioners were fuelled by a collective desire to expand knowledge. Certainly this was true in aural surgery, which saw a steady growth in publications in the first half of the nineteenth century arguing for further research on aural diseases, but it was not until after the 1860s that aurists outlined newer understandings of the physiology, pathology, and anatomy of the ear, identifying new diseases and creating new treatments to contribute to speciality building. The justification for an aural speciality was also driven by the need for legitimacy, not just to differentiate from the quack aurist, but to assert the fallibility of the popular prejudice, which was possible only by the unification of the discipline. A shared identity and values, as well as an ethics of collegiality and

secretaries. T. Mark Hovell, Peter McBride, Victor Horsley, William Milligan, Edward Law, and Arthur Sandford served as the Council. Adam Politzer, for his remarkable contributions to the field and for encouraging a new generation of otologists, was made honorary member. Journals were formed long before the formation of a society. The first journal for aural surgery was William Wright's short-lived *The Aurist*, founded in 1825 with a print run of only three issues. It would take sixty years before another journal for aural surgery was introduced: *The Journal of Larynotology and Otology*, founded in 1887 by Morel Mackenzie and Norris Wolfenden (1855-1926) with the assistance of Morrel Mackenzie (1837-1892); the journal was initially called *The Journal of Larynogology and Rhinology* as Wolfenden contributed much of the initial content on laryngological topics. "Otology" was added in 1892 after John MacIntyre and Dundas Grant were added to the editorship. The first volume of the *Transactions of the Otological Society of the United Kingdom* was published in 1900, a year after the formation of the society. The German journal *Archiv für Ohrenheilkunde (Archives of Otolaryngology)* was established in 1864 by Anton von Tröltsch (1829-1890), Hermann Schwartze (1837-1900) and Adam Politzer, with print runs in both German and English.

¹⁶ Ruth Richardson, *Death, Dissection, and the Destitute* (Chicago: University of Chicago Press, 2000).

devotion to the expansion of aural knowledge formed the foundation of aurists' claims for specialization.

In the writings of aurists, the tensions between specialization and professionalization overlapped and transformed through the years and were mainly articulated based on how individual aurists fashioned their own identities. Generally speaking, on the one hand, they tied themselves towards the ideal of a profession, inserting themselves into a brethren as the "profession of an aurist," making no demarcation between their speciality and their profession. They articulated themselves as respectable and authoritative gentlemen, part of the broader group of medical practitioners, but with specialized training in a particular aspect of the body. Certainly the idea of profession as an "imagined category" was useful for dictating decorum between practitioners and structuring collegiality, aspects aurists argued were necessary for distancing themselves from the "quack aurist." On the other hand, when they argued for unity, they argued for specialization, claiming that access to an exclusive kind of knowledge was better enabled to improve the state of, and knowledge of, aural diseases. Specialization formed their occupational identity as a distinct branch of medical practice, contributing to a more nuanced understanding of how specialized identities were negotiated within the broader profession.

The eventual disappearance of "aurist"/ "aural surgery" and the emergence of "otologist"/"otology"/"otolaryngology," in the twentieth century coincided with greater means for surgical consensus and unification supported by hospital and university positions. However, the shift was not clearly marked, as both terms co-existed until the early years of the twentieth-century. The Otological Society's sixty members, for instance, reveal an abundance of titles across hospitals and universities in the United Kingdom. Some key positions include: Charles Francis Abbott as aural surgeon to St. Thomas' Hospital, James Barry Ball as physician to the Ear, Nose,

Throat Department at West London Hospital, Thomas Barr as lecturer of aural surgery at the University of Glasgow, Alphonso Cumberbatch as aural surgeon to St. Bartholomew's Hospital, Bilton Pollard, Director of the Aural Department in University College Hospital; and John M. Story, aurist to the Claremont Institution for the Deaf and Dumb in Dublin. The myriad of self-fashioned identities and titles suggests how the transformation of a specialty was complicated and relied upon a variety of factors and was not necessarily a straight-forward application of "medical science."

There is so much to uncover that fall out of scope of this dissertation and thus could not be addressed. Being a study of a British surgical speciality and the making of professional identity, this dissertation has refrained from painting a fuller comparative picture of aural surgery in France, Germany, or the United States. It would be interesting to draw parallels between the work of aurists in Britain and the work carried out at the *Institution Nationale des Sourds-Muets* in France, particularly given that many aurists seemed to have visited the Institute during the early stages of their careers. Interesting question to address for future research include: How did knowledge of ear diseases and improved treatment methods transfer between nations, particularly given that during the 1820s British aurists appeared guarded of their occupational group and hesitated introductions of "foreign" instruments or theories? British aurists may have occasionally commented on the French Jean-Marc Itard or the German Wilhelm Kramer's contributions to aural surgery, but there is little discussion on how theories and practices led to newer developments or adoption for British aural surgery. Kramer for instance, maintained correspondence with British aurists through medical periodicals, discussing the merits of aural surgery as well as more specific topics relating to categorization, diagnosis, and treatment of aural disease. Yet a fuller picture of his interaction with British aural surgery needs to be examined.

Additionally, more research is required into the relationship between aural surgery and the broader oralist movement in the second half of the nineteenth century which set roots for the twentieth-century medical model of deafness. The popularity of the artificial tympanum for instance, can be situated in how medical practice held sway in the constructions of deafness within the context of Victorian debates over pedagogy in deafness. As R.A.R. Edwards has shown, the mid-nineteenth century periodization of deaf education raised new questions about language and hearing.¹⁷ These questions, which first emerged in the 1850s, reflected new cultural concerns about the disabled body in Victorian England. In thinking about the role of the deaf person in society—working, socializing, raising a family—hearing educators began to rethink their pedagogical approaches to deaf students, even reconsidering the value of sign language.¹⁸ As the answers to these questions changed, so too, did the pedagogy of deaf education and the role of aurists. As oralists received greater support, aurists who professed they could “cure” deafness were perfect allies to the campaign, as indicated by the formation of a special Investigation Committee in 1900 composed of William Dalby, Herbert Tilley, and Arthur Cheatle, to inquire into the condition of the ears in school children.¹⁹

Lastly, another aspect requiring further examination is the stories/voices of deaf persons. This is fundamental for historicizing how deaf individuals accepted or resisted the care of aurists. Victorian deaf individuals shared their experiences, mostly through magazines and in some cases, correspondence. *The Albion Magazine*, for instance, printed articles from deaf individuals seeking

¹⁷ R.A.R. Edwards, “‘Speech Has an Extraordinary Humanizing Power’: Horace Mann and the problem of Nineteenth Century Deaf Education,” in Paul K. Longmore and Laur Umanski (eds), *The New Disability History: American Perspectives* (New York & London: New York University Press, 2012), 161.

¹⁸ R.A.R. Edwards, *Words Made Flesh: Nineteenth Century Deaf Education and the Growth of Deaf Culture* (New York & London: New York University Press, 2012), 161.

¹⁹ *Transactions of the Otology Society of the United Kingdom* vol. 1, 35.

out hearing aid instruments, describing their experiences with a variety of cures, and their opinions of aurists, but the magazine dates to the early twentieth century. Many other British magazines written by the deaf, for the deaf, also date from the late nineteenth and early twentieth centuries. Uncovering the experiences of deaf persons in conjunction to parallel developments in aural surgery can additionally paint a fuller picture of the range of medical and social “cures” for deafness that were available during the nineteenth century.

One of the most distinctive aspects of this dissertation is that provides a foundation for building a history of how deafness became an integral part of the world of medicine and surgery. Scholars of deaf history have avoided the “dark chapter” of deaf history, looking at the efforts of medical practitioners only as an impediment of the emergence of Deaf culture. But when we think of deafness as being historically configured, it forces us to consider how certain cultural and social activities have attempted to construct its meanings. The meaning(s) of deafness transformed along with shifting visions of aurality, urging or a new interdisciplinary analysis between the history of medicine and disability studies. This dissertation has suggested that as aurists were establishing their sphere of influence and authority, they were negotiating their roles within pedagogical campaigns for the deaf, transforming their physiological explanations of deafness in response to ideological and cultural resonances of normalcy regarding how the deaf were expected to participate in hearing society. This is especially apparent in the development of the artificial tympanum, which not only embodied the expertise of the aurist, but allowed deaf individuals to play a role in the construction, design, and functionality of their own prosthetics. Users could not only amplify their hearing, but also do so discreetly, allowing them to participate in the hearing, speaking, and conversing society. This provides us an interesting angle for

investigating the negotiations between “curing deafness” versus “living with deafness” how these decisions were made.

In conclusion, in addition to being a story of conflict and contention in the making of a specialty, this dissertation sets a foundational lens for evaluating the experiences of deafness in the nineteenth century, using the development of an aural speciality as a probe into the culture of deafness.

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