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“Recharge My Exhausted Batteries”:

Overbeck’s Rejuvenator, Patenting, and Public Medical Consumers, 1924-1937

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Abstract

Although historians have shown that there has been a complex and multi-layered relationship between the body, medicine and the force of electricity, many avenues remain to be explored. One of the most prominent of these is the way in which electrotherapy technologies were marketed to a wide variety of different end users and intermediaries. This paper offers the first historical analysis of one such device – the Overbeck Rejuvenator – a 1920s electrotherapy machine designed for use by the general public. Its inventor, Otto Overbeck, was not a medical man and this enabled him to use aggressive strategies of newspaper advertising, using testimonials to market his product alongside appeals to his own scientific authority. He commissioned the prestigious Ediswan Company to manufacture the Rejuvenator on a large scale, and took out patents in eleven countries to persuade users of the efficacy of the device. In response to Overbeck’s activities, the British Medical Association enlisted an electrical engineer to examine the Rejuvenator, contacted practitioners whose

endorsements were being used in publicity material, and denied Overbeck permission to advertise in the British Medical Journal. Despite this, the Rejuvenator brought its inventor wealth and notoriety, and helped redefine the concept of “rejuvenation”, even if the professional reception of such a device was almost universally hostile. This paper shows how the marketing, patenting and publishing of Overbeck combined to persuade members of the laity to try the Rejuvenator as an alternative form of therapy, bypassing the medical profession in the process.

Keywords: Electrotherapy, Overbeck, Patent, Rejuvenator, Rejuvenation, Electricity

Introduction

‘Overbeck’s Rejuvenating skin-process alone carries out, in its manipulation, the true principles of nature’s method; and this is why the cures resulting from its employment are so far-reaching and wonderful in their results.’¹

In 1925, a brewer’s chemist in Grimsby, a large fishing port on the east coast of England, published a curious book entitled *A New Electronic Theory of Life*. In it he attempted to provide a scientific rationale for believing that the body was simply an electrical machine and that the property of life was nothing more than having appropriate amounts of electricity passing between, and stored within, different parts of the body. The book included elements of physics, chemistry, physiology, anatomy, neurology and cellular biology in order to support these claims, and guided the reader from the electronic structure of atoms through to the neuro-anatomical layout of the human body. Along the way were less-than-subtle references to the successes of an electrotherapy device – the Overbeck Rejuvenator. The author of this intriguing text and the inventor of the Rejuvenator was Otto Overbeck.

In the period in question medical electricity was not a new approach to therapeutics, and it had become enshrined in dedicated hospital departments during the latter stages of the nineteenth century. The first two decades of the twentieth century saw the use of electrotherapy justified in new ways as professionals and the laity alike became increasingly familiar with the possibilities offered by this powerful force.² Although historians have

¹ Otto Overbeck, *A New Electronic Theory of Life* (Grimsby, 1925), 239.

² For two examples of major texts from this period advocating the use of electrotherapy in various different forms, see: W. J. Turrell, *The Principles of Electrotherapy and their Practical Application* (London: Henry Frowde and Hodder & Stoughton, 1922); J. Curtis Webb, *Electro-therapy: its Rationale and Indications* (London: J. & A. Churchill, 1920). Numerous textbooks in the late

largely concentrated on the major developments in electrotherapy that occurred in the late nineteenth century, even as late as the 1920s the discipline was still considered to be a ‘rapidly advancing science’ by its proponents.³ In isolation Overbeck’s book can be viewed as an attempt to convince members of the public and scientific authorities of his own theories about life, health and disease. However, when placed in the context of Overbeck’s business activities, we can see *A New Electronic Theory of Life* in a rather different light. It acted instead as a small part of a much broader advertising campaign for his own electrotherapy device: the Rejuvenator. This paper arises at the intersection of a number of historical themes, including the quack-professional nexus, the commercial component of medical practice, the definition of ‘rejuvenation’, the relationships between the body, ageing, illness and electricity, and claims of scientific authority. A central question underpins these thematic issues: how and why were medical consumers persuaded to buy the Rejuvenator? The Rejuvenator itself as a historical artefact is central to this, and an examination of the device reveals important insights into how potential purchasers were persuaded to choose this particular form of (self-) treatment.

After a survey of the historiographical literature on electrotherapy and the relationship between medicine and commerce, we will look briefly at Otto Overbeck himself – his training, career and relationship with patenting. Following this, the Rejuvenator in its many nineteenth century also demonstrate that as a professional specialty, electrotherapy gathered an enthusiastic following from medical professionals. See: W. E. Steavenson & H. Lewis Jones, *Medical Electricity: A Practical Handbook for Students and Practitioners* (London: H. K. Lewis, 1892); Roberts Bartholomew, *Medical Electricity: A Practical Treatise on the Applications of Electricity to Medicine and Surgery* (Philadelphia: Henry C. Lea’s Son & Co., 1881); George Poore, *A Text-book of electricity in Medicine and Surgery* (London: Smith, Elder & Co., 1876).

³ G. Betton Massey, *Practical Electrotherapeutics and Diathermy* (London: MacMillan, 1924), v.

guises takes centre stage; we will see how this object was put into mass production and marketed to audiences around the globe, and how Overbeck was able to acquire and then exploit patents for the device in numerous different countries. We will look at the advertising paraphernalia which sprang up around Overbeck's device, including large, complex newspaper adverts, brochures, and quasi-scientific texts such as *A New Electronic Theory of Life*. These appealed to Overbeck's own scientific credentials, the authority of scientific theories, and testimonies from medical practitioners and other users. The device did not achieve a universally positive reception, particularly in medical circles, and we will conclude by examining the response of the British Medical Association (BMA) to Otto Overbeck and his invention.

The majority of the historical treatments of electrotherapy deal with this particular medical specialty during the nineteenth century.⁴ Lori Loeb, for example, has argued that large-scale marketing of 'commercial electrotherapy' products through newspapers started to disappear from around 1910 onwards.⁵ Meanwhile, John Senior has examined the context of

⁴ Iwan Rhys Morus, *Shocking Bodies: Life, Death and Electricity in Victorian England* (Stroud: The History Press, 2011); Paul Elliott, "'More Subtle than the Electric Aura': Georgian Medical Electricity, the Spirit of Animation and the Development of Erasmus Darwin's Psychophysiology", *Medical History*, 52 (2008), 195-220; Iwan Rhys Morus, 'Marketing the Machine: The Construction of Electrotherapy as Viable Medicine in Early Victorian England', *Medical History*, 36 (1992), 34-52; Lisa Rosner, 'The Professional Context of Electrotherapeutics', *Journal of the History of Medicine and Allied Sciences*, 43 (1988), 64-82; Paul Cranfield, 'Charles E. Morgan's "Electro-Physiology" and "Therapeutics": An Unknown English Version of du Bois-Reymond's "Thierische Elektrizität"', *Bulletin of the History of Medicine*, 31 (1957), 172-81.

⁵ Lori Loeb, 'Consumerism and Commercial Electrotherapy: The Medical Battery Company in Nineteenth-Century London', *Journal of Victorian Culture*, 4, 2 (1999), 252-75: 270.

neurology, concluding that by the start of the 1920s electrotherapy was largely defunct as an amateur, marginal practice.⁶ The relationship between electrotherapy, the medical profession and commercialisation around the turn of the twentieth century has also been the subject of work by Takahiro Ueyama, who showed how the Royal College of Physicians had a changing relationship with electrotherapeutics as a speciality within which commercial interests operated.⁷ Although these studies, as well as other cultural accounts of the body-machine nexus, have helped to increase our awareness of the status and development of electrotherapy in both a professional and lay context, none proceed to consider how this field developed from the early 1920s onwards.⁸

The ‘medical marketplace’ model has been exploited extensively by historians, particular for the eighteenth and nineteenth centuries, and the history of electrotherapy is no exception in this regard.⁹ This article argues that Overbeck’s forays into the medical marketplace were met with hostility by the BMA; he was able to pursue aggressive marketing

⁶ John Senior, ‘Rationalising Electrotherapy in Neurology, 1860-1920’ (unpublished PhD thesis: Oxford University, 1994).

⁷ Takahiro Ueyama, ‘Capital, Profession and Medical Technology: The Electro-Therapeutics Institutes and the Royal College of Physicians, 1888-1922’, *Medical History*, 41 (1997), 150-81.

⁸ Carolyn de la Peña, *The Body Electric: How Strange Machines Built the Modern American* (New York: New York University Press, 2003).

⁹ See, for example: Harold Cook, *The Decline of the Old Medical Regime in Stuart London* (Ithaca: University of Cornell Press, 1986); Roy Porter, *Quacks: Fakers and Charlatans in English Medicine* (Stroud: Tempus, 2000); Margaret Pelling and Frances White, *Medical Conflicts in Early Modern London: Patronage, Physicians, and Irregular Practitioners, 1550-1640* (Oxford: Clarendon Press, 2003); Mark Jenner and Patrick Wallis (eds.), *Medicine and the Market in England and the Colonies, c.1450-1850* (Basingstoke: Palgrave Macmillan, 2007).

strategies precisely because he was an outsider, and did not have to subscribe to either formal or informal professional codes of conduct which governed the business behaviours of medical practitioners.¹⁰

More broadly, we will see that the Rejuvenator itself expanded upon the very idea of what constituted 'rejuvenation'. Prior to the advent of this particular device, rejuvenation was inextricably linked with sex hormone treatments and gland grafting therapies which generated substantial interest in the lay and professional domains in the early twentieth century. Electrotherapy, by contrast, was almost entirely absent from the extensive rejuvenation literature of the period.¹¹ Indeed, one of the most comprehensive surveys of rejuvenation methods, written after Overbeck's Rejuvenator appeared, still considered only hormone, gland and radioactivity treatments.¹² This exclusion of electricity as a possible means of rejuvenation during the early twentieth century is mirrored by the accompanying secondary literature. Lucian Boia's survey treatment of longevity argues that by the end of the nineteenth century electricity was largely defunct as a method associated with

¹⁰ For more on the relationship between medicine and commerce, see: Takahiro Ueyama, *Health in the Marketplace: Professionalism, Therapeutic Devices, and the Medical Commodification of Late-Victorian London* (Palo Alto: Society for the Promotion of Science and Scholarship, 2010); Claire Jones, '(Re-)Reading Medical Trade Catalogs: The Uses of Professional Advertising in British Medical Practice, 1870-1914', *Bulletin of the History of Medicine*, 86, 3 (2012), 361-93.

¹¹ Andrew Morrison, *Efficiency of Life at 100 Years or More* (Los Angeles: Austin, 1921); William Belfield, 'Some Phases of Rejuvenation', *Journal of the American Medical Association*, 82 (1924), 1242; J. Brinkley, 'What is Rejuvenation?', *Journal of the American Association of Medical-Physical Research*, 4 (1927), 163-6.

¹² C. E. Morris, *Modern Rejuvenation Methods* (New York: Scientific Medical Publishing Co., 1926).

rejuvenation; it had been supplanted by the age of microbes and hormones.¹³ In other accounts, although different forms of rejuvenation are considered, including electrical therapies as one of the many ‘fringe rejuvenation methods’, Overbeck’s Rejuvenator does not feature, despite being a highly visible example of domestic medical technology for well over a decade.¹⁴ This article recovers the Rejuvenator, revealing the attitudes of the mainstream medical profession (in this case embodied principally by the BMA) towards such technologies, and demonstrating an important and hitherto neglected aspect of the rejuvenation movement.¹⁵ Before we consider Otto Overbeck and the Rejuvenator itself, however, it is important to first briefly unpack the meaning of the term ‘rejuvenation’ in the period in question.

¹³ Lucian Boia (trans. Trista Selous), *Forever Young: A Cultural History of Longevity* (London: Reaktion, 2004).

¹⁴ Eric Trimmer, *Rejuvenation: The History of an Idea* (London: Robert Hale, 1967), 57-80; Alex Comfort, ‘A History of Ideas about the Prolongation of Life: The Evolution of the Prolongevity Hypothesis to 1800’, *Medical History*, 11, 3, (1967), 317-8; Erin Lamb, ‘The Age of Obsolescence: Senescence and Scientific Rejuvenation in Twentieth Century America’ (unpublished PhD thesis: Duke University, 2008). Lamb’s analysis is restricted to the US, yet she does not consider the importance of electrotherapeutics as a method of rejuvenation.

¹⁵ Jessica Jahiel has noted that the American Medical Association had similar concerns about rejuvenation research more broadly in this period in the United States. Interestingly, Jahiel classifies rejuvenation research as a ‘subfield of endocrinology’, highlighting the strong association in the historical literature between rejuvenation and hormone therapies. Jessica Jahiel, ‘Rejuvenation Research and the American Medical Association in the Early Twentieth Century: Paradigms in Conflict’ (Boston University: unpublished PhD thesis, 1992), iii.

Methods of Rejuvenation: Glands, Hormones and Electricity

‘The treatment is easy, simple to apply, painless, and far superior to gland grafting. The cost is also extremely low, in view of the wonderfully successful results.’¹⁶

When the Overbeck Rejuvenator first appeared in the medical marketplace in the mid-1920s a distinct set of medical meanings and practices were already firmly associated with rejuvenation.¹⁷ As we can see from the above quotation, Otto Overbeck was well aware that rejuvenation was strongly associated with gland grafting and other treatments based on hormones, and he identified these approaches as his competition. Leading exponents of these chemical rejuvenation techniques and therapies – principally the Austrian physiologist Eugen Steinach (1861-1944), and Russian-born surgeon Serge Voronoff (1866-1951) – had continued the exploratory work of Charles-Édouard Brown-Séquard from the nineteenth century with apparently sensational results. Brown-Séquard published extensively on the injection of animal-derived male sex hormones into humans, and he argued that these injections possessed ‘the power of increasing the strength of many parts of the human

¹⁶ Anon., *Overbeck's Rejuvenator: Patented 7th ed.* (Grimsby, 1928), 22.

¹⁷ John Hoberman, *Testosterone Dreams: Rejuvenation, Aphrodisia, Doping* (Berkeley; London: University of California Press, 2005); Angus McLaren, *Impotence: A Cultural History* (Chicago: University of Chicago Press, 2007), 118, 138, 182. McLaren mentions electrotherapy and its earlier incarnation, galvanic medicine, only in passing, alongside hydropathy, acupuncture and other alternative therapies. Julia Rechter has argued that the craze for rejuvenation in 1920s America was synonymous with hormone and glandular therapies. Julia Rechter, “‘The Glands of Destiny’: A History of Popular, Medical and Scientific Views of the Sex Hormones in 1920s America” (University of California: unpublished PhD thesis, 1997), especially 173-211.

organism.’¹⁸ The approaches of both Steinach and Voronoff emerged from this tradition. Steinach gave his name to an operation which involved performing an incomplete vasectomy. This, Steinach theorised, would cause the affected sex glands to produce larger quantities of testosterone rather than sperm, thus restoring lost youth and vigour.¹⁹ Voronoff, meanwhile, took the experimental method of Brown-Séquard one step further by injecting glandular tissue from monkeys and other primates into the testes of humans hoping to stimulate an increase in the production of sex hormones.²⁰ Voronoff was convinced that this was the answer to restoring youth and virility and he applied his techniques elsewhere, even claiming to have produced ‘super-sheep’ by means of gland-grafting.²¹

The work of Brown-Séquard, Steinach and Voronoff was well-known both within and outside the medical profession; the results of their experiments were published in mainstream medical journals and the popular press across the world.²² Endorsements of the potential power of gland and hormone treatments came from a broad spectrum of social groups, from scientific quasi-outcasts such as biologist Paul Kammerer to the *Lancet*, *Times* and prominent

¹⁸ Charles-Édouard Brown-Séquard, ‘Note on the Effects Produced on Man by Subcutaneous Injections of a Liquid obtained from the Testicles of Animals’, *Lancet*, 20 July 1889, 105-7.

¹⁹ Chandak Sengoopta, “‘Dr Steinach Coming to Make Old Young!’: Sex Glands, Vasectomy and the Quest for Rejuvenation in the Roaring Twenties”, *Endeavour*, 27, 3 (2003), 122-6; Chandak Sengoopta, *The Most Secret Quintessence of Life: Sex, Glands, and Hormones, 1850-1950* (Chicago; London: University of Chicago Press, 2006).

²⁰ ‘Restoring Youth’, *Times*, 9 October 1922, 11;

²¹ ‘Super-Sheep’, *Times*, 11 November 1927, 15.

²² David Hamilton, *The Monkey Gland Affair* (London: Chatto & Windus, 1986).

medical scientists, including Arnold Lorand.²³ In much the same way that biomedical and other scientific figures come to prominence through debates over germ theories of disease in the 1860s and 1870s, Vornoff became an international celebrity. Indeed, the Times noted in 1923 that he had achieved a similar status to that of Sir Frederick Banting, who was in that year awarded the Nobel Prize for his work on the discovery of insulin.²⁴ The high public visibility of research into gland grafting and hormone treatments, and those who promoted such methods, served to create a space in the medical marketplace. The specialised nature of the therapies offered by Vornoff, Steinach and their followers meant, however, that opportunities for commercially exploiting the excitement generated by their research were relatively limited. Instead, Voronoff offered surgical treatment at a high price, and attracted individuals such as the noted Belgian poet Maurice Maeterlinck.²⁵

Whilst there was therefore limited expansion of these surgeries into the public domain (or at least the widely-accessible public domain), the interest in and engagement with the

²³ Arnold Lorand, *Life Shortening Habits and Rejuvenation* (Philadelphia: F. A. Davies & Co., 1922), especially 199; 'Steinach's Operation', *Lancet*, 24 February 1923, 393; Paul Kammerer, *Rejuvenation and the Prolongation of Human Efficiency: Experiences with the Steinach-Operation on Man and Animals* (London: Methuen, 1924). Like much of his own scientific work – some of which the Hungarian-born novelist, journalist and philosopher of science Arthur Koestler later attempted to rehabilitate – Kammerer's account of the apparent success of the Steinach operation was highly controversial. See: Arthur Koester, *The Case of the Midwife Toad* (London: Hutchinson, 1971).

²⁴ 'World Congress of Surgeons', *Times*, 18 July 1923, 14. Bliss argues that Banting was both personally and professional unsuited to the instant fame conferred on him as a result of his work on insulin. See: Michael Bliss, *Banting: A Biography* (Toronto: University of Toronto Press, 1992 [1984]).

²⁵ Angus McLaren, *Reproduction By Design: Sex, Robots, Trees and Test-tube Babies* (Chicago: University of Chicago Press, 2012), 84.

concept of rejuvenation through the press and other popular avenues was very significant. Alongside the more celebrated individuals of Voronoff and Steinach, others, such as Jean Frumusan, published extensively on the subject of rejuvenation, claiming that similar methods could be used to treat a whole host of minor ailments and lifestyle problems, particularly those associated with obesity and the ageing process. Whilst many were committed to promoting one particular method through which individuals might be rejuvenated, Frumusan did not restrict his analysis to a single therapy. Rejuvenation was a multi-faceted process, he argued, which could be achieved as much by modification of diet and lifestyle as through the application of galvanic currents, ultra-violet light-baths, chemicals and hormones.²⁶ He advocated a dramatic reduction in food intake and argued that:

‘Exercise is another important factor in the treatment for rejuvenation. Of infinite variety in its modality and employ, it powerfully modifies cellular vitality, and is a first-class organic regenerator and regulator.’²⁷

However, whilst there were acknowledged benefits to many rejuvenating processes, Frumusan reserved special praise for electricity.

‘The most powerful physical energy, the one whose varied forms and fields of action increase daily, whose benefits are as great as the ignorance and prejudices which reign concerning it, beyond a shadow of a doubt is electric energy.’²⁸

²⁶ Frumusan later wrote a text on the physiology and cure of obesity in which he expanded upon the role of diet in health. Jean Frumusan, *The Cure of Obesity* (London: John Bale, 1924).

²⁷ Jean Frumusan, *Rejuvenation: The Duty, the Possibility and the Means of Regaining Youth* (London: John Bale, 1923), 95-6.

²⁸ Frumusan, *Rejuvenation*, 102.

The debate around the efficacy of gland-grafting and hormone treatments as methods of rejuvenation was therefore well underway by the mid-1920s. It was through the advocacy of Frumusan that the definition of rejuvenation began to expand into areas beyond the work of Steinach and Voronoff; previously it applied almost exclusively to hormone-based understandings of the ageing process in men.²⁹ It was in this environment that the enterprising Otto Overbeck became interested in the idea of rejuvenation and attempted to capitalise on its popularity by relating the restoration of bodily health and youth to the force of electricity.

Otto Overbeck and the Rejuvenator

‘Eight years ago Mr Overbeck was prematurely worn out by a life devoted to scientific research. He was a picture of a decrepit old man, and felt it. His doctor, a lifelong friend, advised him to make his will, but Mr Overbeck, inspired by genius and secure in his scientific knowledge, made instead his Rejuvenator.’³⁰

²⁹ In addition to the benign association with ageing, the rejuvenation movement had some rather more polemic links with eugenics, however these fall outside the scope of this account. Marius Turda, ‘“To End the Degeneration of a Nation”: Debates on Eugenic Sterilization in Inter-war Romania’, *Medical History*, 53, 1 (2009), 77-104; Joan Tumblety, *Remaking the Male Body: Masculinity and the Uses of Physical Culture in Interwar and Vichy France* (Oxford: Oxford University Press, 2012); Thomas Bryant, ‘Sexological Deliberation and Social Engineering: Albert Moll and the Sterilisation Debate in Late Imperial and Weimar Germany’, *Medical History*, 56, 2 (2012), 237-54.

³⁰ ‘British Scientist’s Amazing Health Discovery’, *West Australian*, 23 January 1932, 3.

Otto Christoph Joseph Gerhardt Ludwig Overbeck (Figure 1) was born in London on 10 May 1860 to parents of mixed European heritage.³¹ His father was Joseph Julius Overbeck, a former high-ranking Roman Catholic priest at the Vatican who later became a pioneer of Western Orthodoxy in Britain, and Otto later wrote on the relationship between electricity and religion, suggesting that his father's rather chaotic religious inclinations had an influence on his own way of thinking.³² Otto studied chemistry at University College London, and shortly afterwards moved to Grimsby, where he worked as the scientific director of the well-known local brewing firm, Hewitt Brothers.³³ Little is known about his endeavours in this capacity, but during his time in Grimsby, Overbeck developed and patented a number of devices which related to the brewing process. These included machines for preparing wort, cleaning malt and grain, and several patents for a process of dealcoholising beer.³⁴ He took out his first patent, for 'a new or improved nutritious extract',

³¹ He had grandparents of four different nationalities: French, Dutch, German and Italian. Defence of the Realm Permit Book, 1918, No. 357366, uncatalogued, National Trust, Overbeck's, Salcombe (hereafter: Overbeck's NT).

³² David Abramstov, 'The Western Rite and the Eastern Church: Dr J. Julius Overbeck and his Scheme for the Re-Establishment of the Orthodox Church in the West' (unpublished MA thesis: University of Pittsburgh, 1961).

³³ There is some suggestion that he also studied abroad in Germany, although the evidence to support this is purely circumstantial. James Stark, 'Medical Classics: A New Electronic Theory of Life (1925)', *British Medical Journal*, 17 March 2012, 34; 'The Amazing Doctor Overbeck', *Grimsby News*, 1981, uncatalogued, Overbeck's NT.

³⁴ 'A Mechanical Contrivance which Pumps & Rouses the Wort in Fermenting Vessels', GB Patent 12131, 5 July 1900; 'Improved Apparatus for Cleaning Malt, Grain, Seeds, and other Material', GB Patent 11412, 17 May 1902; 'Apparatus for Cleaning Malt, Grain, Seeds, &c.', US Patent 728604, 31 May 1902; 'A New or Improved Process for the De-alcoholization of Beer', GB Patent 1195, 17

in 1898 and marketed the resulting product as Carnos, a precursor to the highly successful Marmite.³⁵ Despite advertising through newspapers, the company failed, but this interest in business was a feature of Overbeck's life from that point onwards.³⁶ He was an enterprising employee with a curious mind, who even wrote to William Crookes claiming that he had found a new element during the course of his work in brewing.³⁷

INSERT FIGURE 1 ABOUT HERE

Although he remained with Hewitt's for many years, Overbeck had a long-held fascination with youth and the pursuit of an elixir. In 1889, for example, he penned a revealing poem,

January 1910; 'A New or Improved Process for Obtaining Alcohol from Distillers' Wort', GB Patent 4177, 19 February 1910; 'Dealcoholizing Liquids', US Patent 1089862, 10 January 1911; 'Method of De-Alcoholizing Liquids', CA Patent 134880, 25 April 1911.

³⁵ 'A New or Improved Nutritious Extract', GB Patent 15841, 20 July 1898; 'Process of Making Nutritive Extracts', US Patent 632968, 29 December 1898; Wolfgang Schneider, *Lexikon zur Arzneimittelgeschichte: Sachwörterbuch zur Geschichte der pharmazeutischen Botanik, Chemie, Mineralogie, Pharmakologie, Zoologie: Band IV: Geheimmittel und Spezialitäten* (Frankfurt: Pharmazeutischer Verlag, 1969), 111. In the British patent for his nutritious extract, Overbeck claimed membership of both the Chemical Society and Geological Society.

³⁶ 'Advertisement', Stamford Mercury, 8 December 1899, 1; 'Advertisement', Grantham Journal, 6 January 1900, 7; 'Carnos: A Substitute for Meat', Hull Daily Mail, 9 January 1901, 4; 'Sales by Mr David Brocklesbury', Sheffield Daily Telegraphy, 7 March 1903. Overbeck's other business ventures included the Carnio Cattle Food Company of which he was the Managing Director. Similarly to Carnos this was established to use by-products of the brewing trade and only survived for a very short period of time. 'Public Notices', Sheffield Daily Telegraph, 18 January 1901.

³⁷ Needless to say, Crookes was sceptical, and advised Overbeck to carry out a spectroscopic analysis before taking the matter further. William Crookes to Otto Overbeck, 29 October 1903, Overbeck's NT, uncatalogued.

The Alchemist, which is laced with references to cheating old age; even here Overbeck was of the opinion that retaining youthful vigour was a commendable goal, and the first few lines reveal the extent to which he was thinking seriously about the prospect:

‘Yet one more drop, & now! What do I see!

The forms of early youth! Forgotten dreams to me;

Rise with the misty clouds from age’s wintry rime;

and boyhood’s joy & health & summer clime

With scent of roses fills the air!

Old age be-gone! For eternal youth prepare.’³⁸

This preoccupation remained largely dormant for Overbeck until he began to suffer from ill-health in the late 1910s. According his own account, later issued as part of the promotional material associated with the Rejuvenator, by 1921 he was ‘an old man’, with a failing heart and ‘chronic kidney trouble.’³⁹ His motivation for trying electrotherapy is unclear – few of his personal records survive – but he later claimed that as early as 1893 he began to experiment by connecting low-power batteries with brass wire and affixing these to his

³⁸ Otto Overbeck, *The Alchemist* (1889), Notebook, Overbeck’s NT, uncatalogued.

³⁹ ‘Comb “Comb-Back”. Electrical Hair-Dressing to Restore Lost Youth. Grimsby Chemist’s Invention. Machine to Re-charge the “Human Accumulator”’, *The Telegraph*, 18 February 1925; Overbeck’s Rejuvenator (Aust.) Ltd., *Health and Rejuvenation: A Concise Description of the Nature and Uses of Overbeck’s Rejuvenator in its Application to the Electronic Principle of Life* (Sydney, NSW: Lindsay Petherbridge, [1930]), 3.

skin.⁴⁰ There are no extant records which provide an account of these early trials, neither are there any descriptions of the prototype from which to work out the development of the complete device. However, over thirty years after the apparent origins of the Rejuvenator Otto Overbeck had refined these early efforts sufficiently to deposit a patent specification with the British Patent Office for an ‘Electric Multiple Body Comb for Use All Over the Body’ on 17 May 1924.⁴¹ As was (and remains) customary, the patent was drawn up by the patent agents Harris & Mills and covered just one small aspect of the Rejuvenator: the body comb electrode. This was essentially a patent for an insulated, metallic comb to which a battery could be connected and it made no mention of rejuvenation; indeed it remains unclear exactly when Overbeck settled on the name for his device. Shortly after the success of his body comb patent he commissioned the prestigious Ediswan Company to manufacture the complete Rejuvenator on a large scale.⁴² Following its launch, accompanied by much fanfare in the regional press, Overbeck proudly declared that ‘[e]lderly members of an east coast golf club have practised with the rejuvenator, and their handicap has been halved, and they can play three rounds as against two formerly.’⁴³

Unlike the treatments proposed and endorsed by gland and hormone therapists, the Rejuvenator was aimed specifically at non-specialist, lay users, and a number of different,

⁴⁰ ‘Hope for the Aged. Electricity to Make Old Folk Young. Grimsby Man’s Theories’, *The Telegraph*, 20 February 1925.

⁴¹ ‘Electric Multiple Body Comb for Use All Over the Body’, GB Patent 237,384, 30 July 1925.

⁴² Very few records of the Ediswan Company survive. In those that do, there is no mention of the Rejuvenator or the company’s relationship with Otto Overbeck. ‘Archives of the Edison Swan Electric Company Ltd., 1897-c.1965’, MS. Marconi 3113, Bodleian Library, University of Oxford.

⁴³ ‘The Elixir of Life. Mr O. Overbeck’s Discovery. Old Men Made Young’, *GYNews*, 20 February 1925, *Overbeck Cuttings Book*, Overbeck’s NT, uncatalogued.

increasingly complex, versions were produced during Overbeck's own lifetime. The original model consisted of three different pairs of electrodes: the patented electric body combs and two kinds of cylindrical tubes. These were all a similar size, made from the same materials and connected to a large, custom-made battery, supplied in a separate case (Figure 2). This 'Standard Model' was priced at six guineas and came with detailed instructions: the user should connect the electrodes appropriate to the anatomical location of their ailment to the battery, applying them to the relevant area of the body for the time indicated. By the 1930s, there were several different versions of the Rejuvenator available, all operating on the same principle but with an increasing variety of electrode shapes and finishes. The 'Supreme Model' from this later period had three power settings, an integrated battery, and foot-plate electrodes, but was otherwise different only in cosmetic terms.

INSERT FIGURE 2 ABOUT HERE

The complex instruction book advised the user that the first treatment should always be applied to the head; thereafter the current should be used on the affected area of the body.⁴⁴ The appropriate duration of treatments was stipulated by an accompanying 'Time Card', where Overbeck was careful to note that '[t]his treatment is guaranteed absolutely harmless, however often used, when the above directions are followed, and the cure follows with a rapidity accordingly.'⁴⁵ Instructions for testing and replacing the battery and cleansing the electrodes were also included, and users were reminded that the electrodes should remain in constant circular motion during treatment.⁴⁶ Of course, the best results could only be achieved

⁴⁴ Otto Overbeck, *Overbeck's Rejuvenator: Supreme Model Directions for Use* (Grimsby: Chantry House, 1937), 6.

⁴⁵ 'Time Card', Overbeck's NT, uncatalogued.

⁴⁶ Overbeck, *Supreme Model Directions for Use*, 6.

by using Overbeck's own 'Skin-Rejuvenating Soap' to cleanse the body and hair before commencing treatment, and users were encouraged to 'save [their] ... skin with the soap of a scientist.'⁴⁷ He did not specify the manufacturer of the product, yet the soap was marketed as a worthwhile restorative of a youthful complexion in its own right. It also demonstrated a further level of business acumen associated with the Rejuvenator and enhanced Overbeck's credentials as a scientific authority. Not only were other products recommended to allow the best possible outcome, but replacement batteries should, Overbeck warned, only be sought from his company.⁴⁸ He furthered the promise of the Rejuvenator by branding the batteries, manufactured specially by the Ever Ready Company, as 'Life Cells'.

Alongside the details of the Rejuvenator itself, however, there ran a complex and multi-layered advertising campaign which attempted to persuade potential consumers and users that this piece of medical technology was not only manufactured to the highest standard, but also that it was based on solid principles of the very latest medical science. We move now to examine the literature which accompanied Overbeck's device; this embodied various kinds of testimonials, appeals to scientific authority, and a detailed account of how electricity was a vital component of a healthy body. There is no evidence of how many examples of the Rejuvenator were actually used, or even sold, but analysing the scope and character of Overbeck's global advertising network nevertheless sheds light on how he presented this device in the public marketplace.

Marketing Domestic Electrotherapy

⁴⁷ 'Overbeck's Skin-Rejuvenating Soap', Thackray Museum, Leeds, UK.

⁴⁸ Overbeck, Supreme Model Directions for Use, 7.

Overbeck claimed that the Rejuvenator could treat a broad range of ailments without the need to visit a medical practitioner. Amongst these were asthma, bronchitis, deafness, gout, insomnia, neuritis, paralysis agitans, psoriasis, rheumatism and sciatica. Neurasthenia was also amenable to treatment using the Rejuvenator, echoing the claims made by George Miller Beard in the 1870s that this condition was caused by the depletion of electrical energy in the nerves.⁴⁹ Indeed, the list of illnesses which the Rejuvenator could alleviate stopped short only at deformity and diseases caused by germs.⁵⁰ Alongside the device itself, however, ran a professional and highly-organised system of advertising and promotion. This began in 1925 when Overbeck published a book-length treatment of the relationship between electricity and health, *A New Electronic Theory of Life*. Here, Overbeck attempted to ground a theory of electrotherapy in contemporary medical understandings of the body, particularly the nervous system. He began at the sub-atomic level and moved to the whole organism, arguing at each stage that electricity was the critical force governing almost every interaction in matter, from the components of atoms through to the firing of nerves and correct, efficient cellular functioning. Overbeck took the opportunity to cite the work of researchers such as Frumusan, Louis Burman and Bernard Hollander, the latter described by Overbeck as a well-respected advocate of phrenology who had studied physiology under David Ferrier.⁵¹ This represented

⁴⁹ Andreas Killen, *Berlin Electropolis: Shock, Nerves, and German Modernity* (Berkeley: University of California Press, 2006).

⁵⁰ Anon., *Overbeck's Rejuvenator*, 29.

⁵¹ Overbeck, *Electronic Theory of Life*, 91, 158; 'Dr Bernard Hollander', *British Medical Journal*, 17 February 1934, 316. Burman opined that hormone levels had a significant effect on the outward personality of an individual as well as their general health and susceptibility to disease. See: Louis Burman, *The Glands Regulating Personality: A Study of the Glands of Internal Secretion in Relation to the Types of Human Nature* (New York: MacMillan, 1921).

another way in which Overbeck sought to align his own medico-scientific theory as part of a distinguished lineage.

A New Electronic Theory of Life was not simply a way for Overbeck to put forward claims about the biological nature of disease and debility; it was also a vehicle for advertising the Rejuvenator. Indeed, Overbeck claimed not only that he was able to demonstrate a scientific underpinning for his views on health and the underlying causes of disease, but also that his own electrotherapy apparatus was effective in combatting the harmful, negative effects of a lack of electrical energy in the body. As the author noted:

‘By the most modern scientific artificial electrical feeding, as with Overbeck’s Rejuvenator, incipient weaknesses are constantly being cured before they can take hold on the system. Therefore with an electric sufficiency of correct voltage artificially acquired, we must be able to maintain our electric health to perfection theoretically for an unknown maximum of time, always excepting accidents.’⁵²

Although the book laid out his theories in some detail, interested customers were also able to gain access to the bulk of Overbeck’s theoretical musings through newspaper adverts. These encouraged potential purchasers to complete a simple form: in return they received a free pamphlet, *The Secret of Life, Health and Rejuvenation*, which provided a brief outline of the salient points contained in Overbeck’s other writings.⁵³

INSERT FIGURE 3 ABOUT HERE

⁵² Overbeck, *Electronic Theory of Life*, 170.

⁵³ ‘Amazing Book Offer’, *Daily Mail*, 5 January 1937, 6.

Large, sensational and detailed newspaper adverts were a significant feature of Overbeck's marketing efforts (see Figure 3).⁵⁴ They appeared far beyond the confines of the provincial English seaside town of Grimsby from where Overbeck directed proceedings: popular periodicals in both Australia and New Zealand carried numerous full-page spreads showcase the marvels of the Rejuvenator from the late 1920s onwards. These claimed that the Rejuvenator 'banishes constitutional disorders, by removing the cause, increases vitality to a maximum in young and old alike, and enables the elderly to renew their youth.'⁵⁵ Testimonials from satisfied users proudly declared how using this new system of therapy banished pain and discomfort for a number of ailments. One entirely representative letter, purportedly sent to Overbeck, was reprinted in full:

'I have been using your Rejuvenator for about five months ... and have found it of great benefit. I was suffering from Neuritis, but [am] pleased to say I have scarcely felt any pain this winter. I have worn spectacles for 25 years, and now my eyes are wonderfully improved ... My hair, which was white, is being replaced with new dark hair. I think your Rejuvenator is a wonderful invention.'⁵⁶

Many of the testimonials which appeared were tailored to the local audiences. The first advert to appear in the Auckland Star, for example, included several reports of successful treatment from 'New Zealand users', who claimed that conditions such as insomnia, loss of vision and

⁵⁴ 'Better Health for All and Longer Life', Tit-Bits, 3 November 1928, 268; 'Scientist's Remarkable Health Discovery', Graphic, 15 November 1930, 326.

⁵⁵ 'Scientist Rises from the Couch of Old-Age Invalidism to take up an Active Life', Argus, 17 April 1937, 31.

⁵⁶ 'Amazing Health Discovery by a British Scientist', NZ Truth, 13 November 1930, 18.

hearing, constipation and neuritis had been alleviated by using Overbeck's invention.⁵⁷

Similarly, the extensive pamphlet produced to promote the Rejuvenator by the independent Overbeck's Rejuvenator Australia Limited confidently documented the positive experiences of the device and its beneficial results in a section entitled 'What the Rejuvenator has done for Australians.'⁵⁸ Other further 'genuine and convincing recent testimonials from Australian users' in newspaper adverts across the country lauded the device for helping to cure 'neuritis and nervous depression, bad appetite, and sleepless nights', 'nervous debility from the war' and 'bronchial asthma.'⁵⁹ Here, as with elsewhere in his marketing, Overbeck made conscious reference to new nervous illnesses brought on by the First World War, highlighting the importance of this for the context of his advertising campaigns. Such was the apparent interest in the Rejuvenator that the Mail, based in Adelaide, made a supply of Overbeck's advertising pamphlets available from their offices due to overwhelming demand.⁶⁰ This was no doubt fuelled, at least in part, by an endorsement from the famed Australian vocal impersonator, Minnie Love, who declared that she used the Rejuvenator in between performances, and vouched for its efficacy in maintaining the tone of her vocal cords and

⁵⁷ 'Scientist's Remarkable Health Discovery', *Auckland Star*, 8 June 1929, 18; 'British Scientist's Amazing Health Announcement', *Auckland Star*, 22 June 1935, 15.

⁵⁸ Overbeck's Rejuvenator (Aust.) Ltd., Health and Rejuvenation. Overbecks Rejuvenator Australia Limited was established in 1930, although it remains unclear what the relationship was between this and Overbeck's British operations. 'Overbecks Rejuvenator Aust [Australia] Pty [Proprietary] Ltd [Limited]', 13070, Western Sydney Records Centre, Sydney.

⁵⁹ 'Better Health for All and Longer Life', *Queenslander*, 11 December 1930, 9. Advertisements in Australian newspapers appeared for the first time in 1930 and extremely regularly thereafter, often taking up entire pages in prestigious national publications.

⁶⁰ 'Overbeck's Rejuvenator', *Mail*, 1 October 1932, 3.

treating bouts of laryngitis.⁶¹ Assuming that Love's testimonial was genuine, it was allied with a significant number of endorsements from other women. These offset the male-dominated account of Otto Overbeck himself, and ensured that the Rejuvenator was positioned to appeal to both men and women: a consideration which was far more marginalised in the work of surgico-hormone advocates such as Steinach.⁶²

The advertising materials appealed not only to testimonies of ordinary users, but also to Overbeck's own scientific credentials – he was often described as 'the well-known British Scientist' – and support from medical professionals.⁶³ The status of the Rejuvenator as 'British made throughout' was also a feature of the advertising in British Malaya, seemingly establishing another mark of quality and reliability.⁶⁴ Anonymous statements in support of the Rejuvenator's application to conditions such as muscular atrophy and chronic bronchitis appeared from members of the medical profession, adding further credibility to Overbeck's own claims for the device.⁶⁵ These medical testimonials were reproduced at great length in the accompanying pamphlet, and included accounts of how the Rejuvenator had supposedly become included as part of standard medical practice.⁶⁶

⁶¹ 'British Scientist's Amazing Health Discovery', *West Australian*, 23 January 1932, 3.

⁶² For more on the relationship between gender and rejuvenation, see: Sengoopta, *The Most Secret Quintessence of Life*, 89-94.

⁶³ 'Scientist's Remarkable Health Discovery', *Auckland Star*, 8 June 1929, 18.

⁶⁴ 'Overbeck's Rejuvenator', *Strait Times*, 29 May 1937, 1.

⁶⁵ 'Scientist Rises from the Couch of Old-Age Invalidism to take up an Active Life', *West Australian*, 15 May 1937, 13. This advertisement also appeared in the *Argus* (17 April 1937), *Courier Mail* (22 May), *Advertiser* (22 May) and other Australian newspapers.

⁶⁶ Overbeck's Rejuvenator (Aust.) Ltd., *Health and Rejuvenation*.

Allied to the perhaps conventional channels of newspaper advertising, accompanied by testimonials, bold claims of success and the personal endorsement of Otto Overbeck – our respected British man of science and invention – the Rejuvenator itself was calculated to persuade the proud new owner that the treatment was reliable and safe. When opening the lid of the Rejuvenator two things were clearly visible: Overbeck’s own signature and a small plaque (see Figure 4). The former stood out in silver lettering against the brown interior, whilst the latter carried a list of countries in which Overbeck had secured patents against aspects of the Rejuvenator. Earlier models included a similar plaque which highlighted that the device was manufactured by the prestigious Ediswan Company (see Figure 2). These were not mere trivial decorations, however. Like many medical technologies of the period, markings such as these were designed to assure the user of the trustworthiness of the product. Overbeck’s signature – later registered as a trademark – gave the Rejuvenator the inventor’s personal seal of approval, the patent number served to guarantee the novelty of the device, whilst the fact that the Ediswan Company was responsible for the manufacture and testing the instrument lent the whole enterprise further credibility.

It might be supposed that Overbeck had, following the success of his original British patent for the electric body combs, protected other parts of device over subsequent years. However the numerous patents – taken out in eleven countries, including Spain, New Zealand, France and the United States – all applied to exactly the same component as the original British patent.⁶⁷ This demonstrates an important feature of Overbeck’s patenting strategy: he sought these patents not to protect his device from infringement by rivals, but to persuade users that the Rejuvenator was a novel device and, more importantly, that it was effective in all of the ways which he claimed for it. To underline this as the principle role of

⁶⁷ ‘Peigne électrique pour le corps humain’, CH Patent 142291, 2 July 1929; ‘Electric Body Comb’, CA Patent 259547, 6 April 1926; ‘Electric Body Comb’, US Patent 1638407, 17 May 1924.

patenting for Overbeck, his publicity pamphlets (which were published in numerous languages, including Spanish and Norwegian as well as English) all highlighted the patented status of the Rejuvenator on the front cover, assuring potential purchasers that the instrument was trustworthy.⁶⁸ Tellingly, the Rejuvenator was not marketed in all the countries in which the electric body combs were patented, highlighting the fact that these patents served as an advertising ploy for the British and colonial markets.

INSERT FIGURE 4 ABOUT HERE

Although users across the world seemingly wrote to Otto Overbeck expressing their delight at being cured of a whole host of ailments and illnesses, there was by no means a universally positive response to the introduction of this new electrotherapy device. Indeed, as we shall see, investigations by the BMA suggest that many of the statements in support of the Rejuvenator may have been fabricated, or at least used without permission.⁶⁹

‘How Strongly I Object to the Use of my Name’: Controversy and the BMA

⁶⁸ Anon., *Rejuvenecedor de Overbeck: Patentado* (Grimsby: Chantry House, 1928); Anon., *Overbeck's Rejuvenator*; Anon., *Overbeck's Rejuvenator: Patentert* (Grimsby: Chantry House, 1928).

⁶⁹ The level of concern and embarrassment felt by the hierarchy of the BMA is demonstrated by the fact that the correspondence documenting the controversy surrounding the Rejuvenator is restricted until 2089. Until then, details such as the names of the correspondents from and to the BMA are protected and, as such, all letters are anonymised here.

‘...if this is a panacea for all evils which it claims to be it should be shouted from the housetops, but if the reverse it should be shouted down authoritatively and most incontinently.’⁷⁰

Newspapers in England first carried large adverts for the Rejuvenator in 1927.⁷¹ Over the following years individual companies selling this new device were set up around the world and the marketing campaign became global. According to images and descriptions in Overbeck’s promotional material, Ediswan’s factory at Ponders End, Middlesex, dedicated a cavernous room to the manufacture and assembly of Rejuvenators, and a smaller separate laboratory to test them.⁷² In fact, the Rejuvenator was apparently such a commercial success for Otto Overbeck that he was able to buy a large Edwardian residence on the South Devon coast and surround himself with a large and exotic tropical garden, which boasted the ‘finest eucalyptus avenue’ in Britain.⁷³

At an early stage of his marketing campaigns Overbeck sought to establish a foothold within the professional medical domain. His zeal for putting endorsements into print were well known to the BMA who, in writing to another practitioner who had been approached by Overbeck in 1926, warned that ‘anything in the nature of medical recognition will probably

⁷⁰ G to H, 13 November 1937, ‘The Overbeck Rejuvenator’, Wellcome Library, SA/BMA/C.458 (hereafter: Wellcome Overbeck Papers).

⁷¹ ‘Electricity and Disease’, Hull Daily Mail, 24 March 1927, 9; ‘The Rejuvenator’, Hull Daily Mail, 11 February 1927, 8.

⁷² Images of these works were a key component of the Overbeck advertising strategy and appeared in much of his publicity.

⁷³ ‘Wonderful Gift to the Nation’, Western Morning News, 10 December 1937, 5; ‘Otto Overbeck: Obituary’, Western Morning News, 5 June 1937, 9; ‘Gardens of Beauty’, Exeter and Plymouth Gazette, 8 May 1936, 9.

be seized upon by him for advertising purposes.⁷⁴ In 1928 he tried to secure advertising space for the Rejuvenator in the British Medical Journal (BMJ), and also attempted to recruit a qualified medical practitioner as a ‘London consultant’ for the Rejuvenator Company.⁷⁵ In responding to the request for advertising space for the Rejuvenator in the BMJ, the Medical Secretary of the BMA noted that the organisation had already ‘received many complaints as to the proceedings of the individual in question’, Otto Overbeck, and so this professional forum for advertising remained closed.⁷⁶

This came at a time when the BMA and other professional medical bodies maintained a ‘façade of dignity and unity’ and protected a ‘fragile esteem’ in the minds of the British public.⁷⁷ They were therefore reluctant to allow an outsider to erode further the authority which medical professionals held over matters of health. Wary that Overbeck lacked medical training and might therefore be endangering rather than improving the health of users, the BMA obtained a Rejuvenator for themselves and promptly commissioned an electrical engineer to test the safety of the device.⁷⁸ The resulting report concluded that although the currents were so small that it was unlikely to do any harm when applied to the trunk or limbs,

⁷⁴ A to D, 24 October 1926, Wellcome Overbeck Papers.

⁷⁵ I to J, 5 June 1928, Wellcome Overbeck Papers.

⁷⁶ Ibid.

⁷⁷ Andrew Morrice, ‘“The Medical Pundits”: Doctors and Indirect Advertising in the Lay Press, 1922-1927’, *Medical History*, 38, 3 (1994), 255-80, 280. For more on the relationship between the medical profession, advertising and publics, see: Hannah Barker, ‘Medical Advertising and Trust in Late Georgian England’, *Urban History*, 36, 3 (2009), 379-98.

⁷⁸ Overbeck offered to give potential users of the Rejuvenator ‘individual advice regarding any complaint’, and this may have caused the most anxiety to the medical profession. Anon., *Overbeck’s Rejuvenator*, 4.

the 'self-treatment of the mouth and ears' gave reason for concern, as even a small current could cause pain and 'dangerous burns', especially when the Rejuvenator was used on damp skin, as Overbeck advised in some cases.⁷⁹ This report enabled the BMA to offer authoritative advice to concerned medical practitioners, many of whom contacted the Association to ask their opinion on the efficacy of the device.⁸⁰ In a cautious response to one query from an Italian medical practitioner the BMA noted that although the Rejuvenator did not supply a current sufficiently large to cause any harm to users, 'painful, slow ulcers might easily be caused by the use of the electrodes in the mouth.'⁸¹

By 1930, newspaper adverts for the Rejuvenator routinely included endorsements by medical practitioners, alongside the positive statements from users and Overbeck himself. The BMA was deeply concerned that many of its members were seemingly advocating treatment using the Rejuvenator as a viable (or even preferable) alternative to conventional medicine. Under pressure from the Advertising Association of Australia, a high-ranking BMA representative wrote to several medical practitioners whose names were being used by Overbeck in his promotional literature.⁸² Several such practitioners responded, all of whom were shocked at the appearance of their names in connection with the Rejuvenator. One noted that, although they had purchased a Rejuvenator, the advertising endorsement was printed 'without my knowledge or consent', whilst others vehemently denied all knowledge of the product in question and vowed to seek 'an explanation from the Overbeck Co.'⁸³

⁷⁹ 'Report: Overbeck Rejuvenator', 14 June 1928, Wellcome Overbeck Papers.

⁸⁰ E to F, 29 April 1931, Wellcome Overbeck Papers.

⁸¹ F to E, 4 May 1931, Wellcome Overbeck Papers.

⁸² A to B, 5 August 1931; A to C, 5 August 1931, Wellcome Overbeck Papers.

⁸³ B to A, 6 August 1931; C to A, 6 August 1931; K to A, 7 August 1931; B to A, 10 August 1931, Wellcome Overbeck Papers.

In Australia in 1934, under pressure from both the BMA and the Advertising Association of Australia, the colonial administration made efforts to have the Rejuvenator banned from the country as it was ‘not regarded as a reliable method of treatment’ and was rather calculated to exploit ‘ignorant or innocent purchasers’.⁸⁴ The following year measures were brought before the Australian House of Representatives by the former Prime Minister W. M. Hughes to include the Rejuvenator – which not deemed to be reliable medical treatment – ‘within the list of prohibited articles’ stipulated by the Trade and Customs Department.⁸⁵ These endeavours originated not solely from the medical profession, but through the channels of trade law, echoing earlier aggressive attempts by Australian legislators to pursue quarantine as a strategy of protectionism in a variety of settings. In this case efforts to ban the Rejuvenator were apparently either unsuccessful or not pursued further, as full-page advertisements continued to appear over following years in Australia, New Zealand and Britain.

The concern shown by the BMA at the popularity of the Rejuvenator is explicable on a number of levels. At face value, it seems to reflect a desire to protect the public from a device which might worsen existing medical problems (or even create new ones) rather than acting in a curative fashion. In the eyes of the medical profession, the use of Overbeck’s Rejuvenator for illnesses such as influenza and diabetes could lead to a possible fatal delay in the users seeking conventional medical advice. This annexing of medical authority by a lay person was therefore a major source of concern. The attitudes and responses of the

⁸⁴ ‘Medicine. Rejuvenator. Inventor of Youth-Machine Pronounced Useless by Commonwealth Government Produces New Life Theory at 76’, *News Review*, 18 June 1936, Wellcome Overbeck Papers.

⁸⁵ ‘Overbeck’s Rejuvenator’, *Northern Times*, 16 January 1935, 5. For more on Hughes, see: Malcolm Booker, *The Great Professional: A Study of W. M. Hughes* (Sydney: McGraw-Hill, 1980).

Association towards Overbeck also show that, despite the increasing acceptance by professional bodies that physicians' activities were bound up with the manufacture and development of new medical technologies during the early twentieth century, they remained deeply hostile towards those with little or no medical training. It is rather ironic to note the similarities between the Rejuvenator and the earlier machines devised and endorsed by Duchenne de Boulogne, one of the pioneers of modern electrotherapy.⁸⁶ In contrast to the reception of Overbeck's product Duchenne's 'volta-faradic instruments' were held in extremely high regard by practitioners in the 1870s; although almost indistinguishable in their action from the Rejuvenator their association with Duchenne lent genuine medical credibility to such devices.⁸⁷

A comparison between the reception of the respective devices of Duchenne and Overbeck reveals much about the medico-social contexts of these instruments. For the late-nineteenth century medical consumer electricity was a new and exciting force, found largely in hospitals and used under the supervision of medical professionals. There was an implicit assumption that medical practitioners would only endorse products known to be efficacious, and links with commercial enterprises were rare. By the 1920s, electricity had become a far more ubiquitous force in domestic life, and potential users felt increasingly confident in their

⁸⁶ For more on Duchenne, who was one of the most significant figures in nineteenth century neurology and a great influence on figures such as Jean-Martin Charcot and Charles Darwin, see: François Delaporte, *Anatomy of Passions* (Stanford: Stanford University Press, 2008).

⁸⁷ Herbert Tibbits, *A Handbook of Medical and Surgical Electricity* (London: J. & A. Churchill, 1877), 36-7.

ability to master this technology safely.⁸⁸ This posed a challenge to mainstream medicine which was not present in the late-nineteenth century, and both medical and political groups fought to protect customers and their own professional interests. Such an imperative was not present fifty years earlier when electricity did not have a substantial place in the average home.

Otto Overbeck was one of the most successful exponents of this new medical marketplace. He died in 1937 having never married, leaving his palatial estate to the nation, and the Rejuvenator business to two close friends from Grimsby: Reginald Smith and Edwin Ayre. The following, final section will examine the fate of the Rejuvenator after Overbeck's death, before examining the wider implications of the events surrounding this particular electrotherapy device for our understanding of medicine in this period.

Conclusion: The Legacy of Overbeck and the Rejuvenator

‘To deny the value of electricity is to deny the possibility of Deistic assistance.’⁸⁹

Reginald Smith and Edwin Ayre registered details of a new company – Overbecks Rejuvenator Limited – on 15 October 1937 with a nominal capital of £6000 and set out with the intention of continuing the business both in Britain and elsewhere. Ultimately, however, it was the outbreak of the Second World War which brought an abrupt halt to the Rejuvenator. Advertisements continued to appear in newspapers well into 1938, somewhat ironically

⁸⁸ Graeme Gooday, *Domesticating Electricity: Technology, Uncertainty and Gender, 1880-1914* (London: Pickering & Chatto, 2008).

⁸⁹ Otto Overbeck, *The New Light: Overbeck's Electronic Philosophy of the Universe* (London: Metchin and Sons, 1936), 212.

featuring images and stories of the now deceased Overbeck as a ‘new man ... preparing plans for a new life.’⁹⁰ By 1940 the company’s finances were still far from perilous, with over £550 in the bank, yet ‘[t]he outbreak of War had practically brought the business of the Company to a standstill owing to the impossibility of obtaining materials and supplies necessary therefor.’⁹¹

Although the major commercial activities of the Rejuvenator company had ceased, however, examples of the device continued to circulate and appeared regularly in classified adverts for a number of years.⁹² Even as late as 1955 J. G. Walker, an associate of Edwin Ayres received a request for a replacement battery for a supreme model of the Rejuvenator. It is revealing that the letter reached him at the original address of Otto Overbeck in Grimsby – Chantry House – and that Walker was able to acquiesce to the request with a brand new battery, which still sits in its original packaging at Overbeck’s former house in Devon.⁹³ Rejuvenators were therefore being used at least thirty years after Otto Overbeck was granted his original patent for the body comb.

⁹⁰ ‘Scientist Rises from Couch of Old-Age Invalidism to take up an Active Life’, Sunday Times, 15 May 1938, 14; ‘Scientist Rises from Couch of Old-Age Invalidism to take up an Active Life’, The Evening Post, 11 June 1938, 21.

⁹¹ ‘Members’ Voluntary Winding-Up’, No. of Company: 332617; Overbecks Rejuvenator, Limited. Incorporated in 1937, BT31/33729/332617 National Archives, Kew.

⁹² Rejuvenators were being offered for sale some time after in New Zealand (1945) and Britain (1948), whilst the Australian press carried classified advertisements until 1952. See: ‘Wanted to Sell’, Auckland Star, 1 December 1945, 3; ‘Senior and Godwin’, Western Gazette, 13 February 1948, 1; ‘Wanted to Sell. General’, Advertiser, 5 February 1952, 16.

⁹³ J. G. Walker to Philip Harris, 24 September 1955, uncatalogued, Overbeck’s NT.

Otto Overbeck clearly had great faith in the medical potential of electricity, and believed that he had created a device which would offer therapeutic benefits to numerous ailments and illnesses. In 1936, the year before his death, he published a second book in which he took the ideas laid out in *A New Electronic Theory of Life* one step further. *The New Light*, confidently subtitled *Overbeck's Electronic Philosophy of the Universe*, discussed the use and application of electricity not just in the scientific, but in the philosophical and religious domains. According to Overbeck, the fact that the universe itself is governed by electrical energy

‘inaugurates a complete Religion, universally possible of acceptance by all, because it is scientifically understandable and entirely logical. It will eventually sway general opinion throughout the world because it is the only Religion based entirely upon facts ... The new Religion is in an embryonic state; and it only awaits Mankind to activate it by concentrating his logic upon the various directions in which the Deistic electronic law functions for the benefit of all things.’⁹⁴

There are two possible reasons for why Overbeck might have trusted in the healing power of electric currents. On the one hand, he may have genuine a priori reasons for thinking that all human action was dictated by electrical force, especially given that he even denied the existence of free will on these grounds.⁹⁵ However, it is equally possible that he believed that electricity was the key factor behind human health because he was selling an electrotherapy device. Although it is not possible to identify from where his faith in electricity derived, what is certain is that he published extensively on the subject, referring frequently to his own invention.

⁹⁴ Overbeck, *The New Light*, 210-11.

⁹⁵ *Ibid.*, 212-17.

The Rejuvenator was a device which was conceived, marketed and used at the periphery of mainstream medical practice, yet the international nature of its success illustrates the readiness with which public medical consumers embraced alternative modes of therapy alongside, and perhaps instead of, the traditional context of the patient-physician relationship. In much the same way that germ theories of disease allowed ‘entrepreneurs of the germ’ to exploit public beliefs about the threat posed by germs, Otto Overbeck was able to sell his Rejuvenator to a middle-class public who were eager to explore the possibilities associated with alternative therapies which bypassed the mainstream medical profession.⁹⁶ At the same time, this was a social group who were becoming increasingly comfortable with allowing electricity not only into their homes, but also into contact with their bodies.⁹⁷ In the early twentieth century medical practice was becoming increasingly diverse, with germ theories of disease, social medicine, eugenics and technology-driven treatments such as actinotherapy and phototherapy competing in a more accessible medical marketplace.⁹⁸ The acceptance of the Rejuvenator as a valid form of medical treatment by the wider public also highlights the increasingly diverse and accessible nature of the medical marketplace.

The Rejuvenator lay at the intersection between medicine, commerce, and quackery, and it illustrates several significant historical points in reference to the relationship between these. Firstly, its popularity and high visibility in the public domain demonstrates a neglected episode in the history of medicine. Professional electrotherapy in the nineteenth century has

⁹⁶ Nancy Tomes has written authoritatively on the emergence of commercial practices associated with germ theories of disease in the United States: Nancy Tomes, *The Gospel of Germs: Men, Women, and the Microbe in American Life* (Cambridge, MA: Harvard University Press, 1998), especially 68-90.

⁹⁷ For more on the gradual, incomplete and controversial adoption of electricity as a domestic technology, see: Gooday, *Domesticating Electricity*.

⁹⁸ Ueyama, *Health in the Marketplace*.

been the subject of a number of excellent recent studies, yet the amateur manifestation of this key medical technology remains a rich topic for historical exploration.⁹⁹ We have seen in this article that practitioners had concerns about entrepreneurs with little or no medical education selling products to untrained members of the public for use in the home without medical supervision. Overbeck's position as an outsider allowed him to exploit marketing strategies shunned by the profession. He used extensive testimonials, his own personal account of the Rejuvenator's benefits, appeals to scientific and medical authority and theories (both his own and that of others), patents from numerous countries, and the credentials of Britain as a reliable manufacture of goods.

Secondly, Otto Overbeck, whether consciously or unconsciously, redefined what was meant by the term 'rejuvenation'. In earlier decades this word had become synonymous with the gland grafting and hormone therapies of Voronoff and others. These were almost exclusively aimed at men and cast in terms of virility and vitality, yet Overbeck expanded the term to include electrotherapy as a viable and more far-reaching alternative for both men and women, able to treat diseases and ailments as well as simply restore youth and lost vigour. In doing so he claimed to make rejuvenation a more realistic possibility for all medical consumers, and all without vast expense or the intervention of a medical practitioner. The high profile appearance in Overbeck's promotional literature of nervous illnesses and disorders associated with the post-WWI period – such as neurasthenia and nervous debility – also emphasises the perceived lack of confidence which patients and sufferers had in the medical profession.

⁹⁹ Morus, *Shocking Bodies*; Elliott, 'More Subtle than the Electric Aura'; Morus, 'Marketing the Machine'; Loeb, 'Consumerism and Commercial Electrotherapy'; Senior, 'Rationalising Electrotherapy in Neurology'; Ueyama, 'Capital, Profession and Medical Technology'.

Thirdly, the Rejuvenator shows an important instance of how patents were used in the medical marketplace. Overbeck applied for patents not to protect his device from copying, or to establish a monopoly in the field of electrotherapeutics; rather, he used the patents to show how patenting systems of different countries all acknowledged the originality of his invention. This added authority to his claims for novelty, efficacy and authority, and helped to persuade medical consumers that they should place their trust in the Rejuvenator rather than a physician. This builds on recent work in the history of intellectual property which has shown that inventors, companies, scientists and entrepreneurs chose to patent or not patent their devices for a wide variety of different reasons.¹⁰⁰ It is important to note, however, that the Rejuvenator itself was not patented. Only a small aspect – the electric body combs – were included on the patents, all of which were for this same part. Indeed, the text of the Belgian, French and Swiss patents was identical, even though they were issued four years apart.¹⁰¹

Finally, the story of the Rejuvenator also highlights an important episode in the narrative of gradual (if incomplete and problematic) assimilation of electricity into everyday domestic medical life. Potential users of this technology were now not only comfortable enough to allow electrical apparatus into their homes, but content to apply this force to their own body. This echoes late Victorian views of electricity as a benign servant which could be controlled and instructed for human benefit.¹⁰²

¹⁰⁰ Stathis Arapostathis and Graeme Gooday, *Patently Contestable: Electrical Technologies and Inventor Identities on Trial* (Cambridge, MA: MIT Press, 2013); Adrian Johns, *Piracy: The Intellectual Property Wars from Gutenberg to Gates* (Chicago: University of Chicago Press, 2009).

¹⁰¹ ‘Peigne électrique pour le corps humain’, FR Patent 598221, 9 December 1925; ‘Peigne électrique pour le corps humain’, CH Patent 142291, 2 July 1929; ‘Peigne électrique pour le corps humain’, BE Patent 362198, 10 July 1929.

¹⁰² Gooday, *Domesticating Electricity*, 196-7, 208-11.

The Rejuvenator was clearly just one of a number of devices which caused professional medical associations and individuals a headache during this period.¹⁰³ It is unique, however, because it embodies a number of key themes, highlighting further areas for exploration by historians of medicine. In particular, we are encouraged to look more closely at how professional medicine and popular advertising interacted, and how and why domestic electrotherapy co-existed alongside professional manifestations of the technology, such as electro-convulsive therapy from 1938. The case of the Rejuvenator also highlights an important episode in the history of the ownership and use of the term ‘science’. Overbeck used the tools of intellectual property alongside appeals to scientific credibility for his own commercial ends. He used these factors to persuade consumers to try the Rejuvenator to treat a broad range of ailments, whilst organised professional bodies attempted to resist this and maintain control over their own historical areas of medical expertise.

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¹⁰³ Numerous products purporting to provide medical benefit through electricity and/or radioactivity were available on the market, including other kinds of electrodes and various belts. Amongst these, the Q-Ray Electro-Radioactive Compress is perhaps the best-remembered.

Figure Captions

Figure 1: Otto Overbeck, self-portrait (1902)

Source: Overbeck's, National Trust, Devon, NT Inventory Number 1413439

Figure 2: Overbeck's Rejuvenator. This is the original model, produced around 1926, showing the three different pairs of electrodes, including the patented body combs. The large, heavy battery came in a separate case, whilst the small black plaque on the inside lid displayed details of a British patent and proudly announced that the device was manufactured by the Ediswan Company.

Source: Overbeck's, National Trust, Devon, NT Inventory Number 1413462

Figure 3: This is just one example of numerous advertisements for the Overbeck Rejuvenator which appeared in the Australian press in the 1930s. It included personal testimony from Otto Overbeck, recommendations from medical men and satisfied users, and a coupon for a copy of Overbeck's explanatory pamphlet.

Source: 'Scientist Rises from the Couch of Old-Age Invalidism to take up an Active Life', The Farmer and Settler, 8 September 1938, 3.

Figure 4: A list of patents displayed on the inside of the Rejuvenator's lid. They were taken out over a period of six years and all applied to the electric body comb which was just one part of the Rejuvenator. They were calculated not to protect intellectual property from infringement, but to persuade users and potential purchasers that the device was effective.

Source: Overbeck's, National Trust, Devon, NT Inventory Number 1413333