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Soothing Syrups and Teething Powders: Regulating Proprietary Drugs in Australia, 1860–1910

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In the hot summer months of nineteenth-century colonial Australia, a quiet dread descended upon parents of the very young. Diarrhoea was about to assert its role as the greatest single threat to the lives of their infants.[1] Between 1875 and 1900 Australian vital statistical records matched those of Europe, Britain and America,[2] revealing a pattern in which infant diarrhoeal mortality accounted for no less than a quarter, and possibly one half, of all infant deaths.[3] In the early twentieth century, summer diarrhoea was referred to by Mrs Annie Ellis, in her handbook for Australian mothers, as "a terror that stalks these tropical lands".[4] Typically, the first line of defence against its lethal onslaught was opiate-based medicine, frequently those popularly referred to as patent medicines, although very few nineteenth-century pharmaceutical products actually held patents.[5] The

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[1] Milton Lewis, 'Milk, mothers, and infant welfare', in Jill Roe (ed.), *Twentieth century Sydney, studies in urban and social history*, Sydney History Group, 1980, p. 193; Milton Lewis, 'Some infant health problems in Sydney, 1880–1939', *Infant Health Problems*, 1982, **68**: 67–73; F B Smith, *The people's health 1830 to 1910*, London, Croom Helm, 1979, p. 85.

[2] Milton Lewis, 'The problem of infant feeding: the Australian experience from the mid-nineteenth century to the 1920s', *J. Hist. Med. Allied Sci.*, 1980, **35**: 174–87, p. 174; John Powles, 'Keeping the doctor away', in Verity Burgmann and Jenny Lee (eds), *Making a life: a people's history of Australia since 1788*, Ringwood, Vic., Penguin/McPhee Gribble, 1988, pp. 70–84. M W Beaver, 'Population, infant mortality and milk', *Popul. Stud.*, 1973, **27**: 243–54.

[3] During the twentieth century, health statisticians realized that diarrhoeal deaths were greatly understated. Historians Gordon, Lewis and Mein Smith have provided evidence that diarrhoea probably killed about a half of all infants once the nineteenth-century coroners' categories of debility, enteritis, atrophy and want of breast milk, convulsions, and teething were reasonably added, in D Gordon, *Health, sickness and society: theoretical concepts in social and preventive medicine*, St Lucia, University of Queensland Press, 1976, p.161; Milton Lewis, 'Sanitation, intestinal infections, and infant mortality in late Victorian Sydney', *Med. Hist.*, 1979, **23**: 325–38; Philippa Mein Smith, 'Infant welfare services and infant mortality: a historian's view', *Aust. Econ. Rev.*, 1991, **1**: 22–34. Kintner has contributed to this discussion using German statistics and including convulsions in deaths caused by diarrhoea—Hallie J Kintner, 'Classifying causes of death during the late nineteenth and early twentieth centuries: the case of German infant mortality', *Hist. Methods*, 1986, **19**: 45–54.

[4] Mrs Annie Ellis, *The Australian baby*, Melbourne, 1902, quoted in Milton James Lewis, '"Populate or perish": aspects of infant and maternal health in Sydney, 1870–1939', PhD thesis, Australian National University, 1976, p. 10.

[5] Desmond Manderson, *From Mr Sin to Mr Big: the history of Australian drug laws*, Melbourne, Oxford University Press, 1993, p. 52; A Walker Bingham, *The snake-oil syndrome: patent medicine advertising*, Hanover, Mass., Christopher Publishing House, 1994, pp. 4–5. Bingham notes that in the United States the first medical patent was awarded in 1796; for the next forty years an annual average of two medical patents were awarded.

synthetic drugs produced by German companies from the 1870s, were the outstanding exception.[6] The label "proprietary medicines" more accurately describes the ready-to-use drugs, such as teething powders and infant soothing syrups, which until at least the 1860s were widely advertised, and were sold at food stores and druggists, and directly to the public by doctors.[7]

Until the second half of the century the proprietary drug industry was virtually unregulated. From the middle of the century, throughout the United Kingdom, the United States of America, and Australasia, what we would now call the health sector was engaged in heated disputation over such questions as: who ought to hold the legal right to prescribe and sell drugs[8] especially narcotics? who had the right to charge a fee for medical advice? what was the difference in the role of druggists and doctors? which of the medical trainings would dominate and be considered orthodox?[9] and who ought to regulate all of the groupings?[10] The battle to establish some measure of juridical control over the sale, use, importation and production of proprietary drugs was part of this larger picture. This paper contributes to the histories of this wide ranging regulatory movement in the history of western medicine, by providing social historical background to the struggle to enact laws to regulate proprietary medicines in Australia. Parents—whether they were educated or totally unschooled, whether they were accountants or shepherds, wealthy or pauperized—shared the terror of infant diarrhoea and they were united in their heavy reliance upon proprietary drugs to combat it. By concentrating upon the consumer, the paper provides testimonies of how parents administered proprietary drugs and whether the campaign by the medical press to discredit what it called "secret potions" had any effect upon the attitudes of regular users of the products. The detailed cases of nineteenth-century parental use of proprietary drugs are drawn from depositions of the Queensland Coroner.

This paper is primarily concerned with Australian history, but it points to strong links between Australian laws and those in the United Kingdom and (to a lesser degree) in the United States. The proprietary potions which lulled sick Australian babies to sleep were mostly imported. Most manufacturers of potions continued to resist efforts to regulate the production, sale, advertising and importation of their products, fighting with equal determination in the United Kingdom, United States, Australia, and New Zealand against

[6] James Harvey Young, *The toadstool millionaires: a social history of patent medicines in America before federal regulation*, Princeton University Press, 1961, p. 206.

[7] Smith, op. cit., note 1 above, p. 97.

[8] On the demarcation dispute between chemists and doctors over the right to sell drugs in Australia see D R A Manderson, 'Iatrogenesis? Medical power and drug laws 1900–30', *Australian Drug and Alcohol Review*, 1988, **7**: 455–65. Through the 1920s and 1930s, Manderson argues, "chemists came to be seen as mere adjuncts and adjutants over the expanding range of drugs. The battle to prescribe and to sell without a doctor's prescription was a lost cause". On the British history of the difference in expertise between the apothecary and the druggist from the seventeenth to the nineteenth century see Roy Porter and Dorothy Porter, 'The rise of the English drugs industry: the role of Thomas Corbyn', *Med. Hist.*, 1989, **33**: 277–95, and on the difference in the nineteenth century in Britain see Hilary Marland, 'The medical activities of mid-nineteenth-century chemists and druggists, with special reference to Wakefield and Huddersfield', *Med. Hist.*, 1987, **31**: 415–39.

[9] Philippa Martyr's study of the struggle between what became known as orthodox medicine and alternative or quack medicine provides a lively summary of many experimental and untested medical theories. Philippa Martyr, 'Protectors of the public? Medical orthodoxy and the suppression of alternative practice in Western Australia, 1870–1914', *Stud. west. Aust. Hist.*,1993, **14**: 149–68.

[10] See, for example, Milton Lewis and Roy MacLeod, 'Medical politics and the professionalisation of medicine in New South Wales, 1850–1901', *J. Aust. Stud.*, 1988, **22**: 69–82, p. 76.

any legislation that might affect their profit margin.[11] Medical and political campaigners who challenged the considerable economic and political might of proprietary drug companies knew of the struggles in each of these countries, and the laws, once passed by one legislature, were copied by others, marginally modified for local use. This is a social history which aims to highlight the efforts, lives and losses of the people involved—parents, medical practitioners, politicians, lobbyists and ideologically committed campaigners—in the nineteenth-century story of the use of, and legislative control over, proprietary drugs for infants.

Infant Soothers: Expectations and Dangers

The market for ready-to-use infant soothers and powders for home use was symptomatic of a shift in expectations away from acceptance of God's will in matters of life and death, towards a more interventionist and enlightened belief that human agency could change the course of disease and sickness. Despite the fact that ready-to-use infant drugs were mostly opiates, their history should not be confused with the parallel history of opium addiction which, by the nineteenth century, was widespread in the United States,[12] Britain,[13] and Australia.[14] Addiction could result from drug use for leisure or the inadvertent over-use during sickness or injury, but the proprietary dosing of infants was part of the nineteenth-century western world trend of self-medication.[15] Roy Porter and Dorothy Porter document that, in the United Kingdom, the process of self-medication with opiates began in the seventeenth century until, by mid-way through the nineteenth century,

[11] McCoy dates the beginning of community concern about proprietary medicine as the 1850s. A McCoy, *Drug traffic: narcotics and organized crime in Australia,* Artarmon, Harper and Row, 1980, pp. 52–64; for more on the history of legislative control of drugs in Australia see also, G Haines, *The grains and threepenn'orths of pharmacy: pharmacy in N.S.W. 1788–1976*, Kilmore, Lowden, 1976; and John Lonie, 'A social history of drug control in Australia, Research paper 8', *Royal Commission into the Non-Medical Use of Drugs, South Australia Parliamentary Papers*, 1979; and for control of prescription drugs during the twentieth century see L W Darvall, 'The pharmaceutical industry: prescription drug information controls in Australia and the United States', *Monash University Law Review*, 1980, **7**: 39–51.

[12] David T Courtwright, *Dark paradise: opiate addiction in America before 1940*, Cambridge, Mass., and London, Harvard University Press, 1982. Courtwright illustrates that in the United States, the rate of opium addiction increased throughout the nineteenth century, "from not more than 0.72 per thousand . . . prior to 1842 to a maximum of 4.59 per thousand in the 1890s" (p. 9).

[13] Berridge and Edwards provide evidence that the major increase in opiate consumption occurred during the first two-thirds of the nineteenth century. Virginia Berridge and Griffith Edwards, *Opium and the people: opiate use in nineteenth-century England*, New Haven and London, Yale University Press, 1987, pp. 30–50. See also T Parssinen, 'Opium and the people', essay review, *Med. Hist.*, 1982, **26**: 458–62.

[14] An Australian study in 1879 claimed that in one Melbourne suburb "the weekly sale of opiates . . . by fifteen dealers averaged six gallons, two quarts and one and a half pints", while in another, Preston, "twenty-one chemists sold, in a single week, 66 pounds worth of Godfrey's cordial, child's preserver, syrup of poppies and similar compounds". L Meng, C Cheong, L Ah Mouy (eds), *The Chinese question in Australia*, 1879, quoted in D R A Manderson, 'The first loss of freedom: early opium laws in Australia', *Australian Drug and Alcohol Review*, 1988, **7**: 439–53.

[15] Roy Porter and Dorothy Porter argue that the increasing tendency towards self-medication with drugs followed the increasing availability of drugs, especially from the Orient: "the supply side of the equation swelled massively between the sixteenth century and the nineteenth". Porter and Porter, op. cit., note 8 above, p. 279. In Australia self-medication was the subject of several concerned debates in the legislature. For example, in introducing the 1905 Commerce (Trade Description Act), Bruce Smith noted: "Every-one knows that there is a growing tendency on the part of people in

it had become a cultural norm.[16] Coroners' evidence endorses such findings, indicating that by the second half of the nineteenth century, long-term heavy reliance upon proprietary and other narcotic drugs was a normal part of parenting the very young. As a variety of laws, some of which overlapped, made their slow path through colonial legislatures, the sale of narcotics, especially opium, became a little more difficult, but almost all nineteenth-century Australian laws exempted proprietary drugs from their frames of reference, even though many of the principal ingredients of these drugs *were* covered by the laws.

Mid-way through the nineteenth century, the medical press,[17] some home medical guides, a selection of magazines referred to as "ladies journals",[18] and some newspapers[19] began to warn of the potential danger to infant life posed by some of the most popular proprietary infant soothers. The American *Ladies Home Journal*, published in Philadelphia and sold in Australia and Britain, was the most celebrated of the monthlies which both campaigned against the trade and refused to advertise proprietary drugs.[20] In 1907, the editor, Edward Bok, revealed that the loss of advertising revenue was "six figures a year".[21] In 1913, Australian advertisements for proprietary products cost manufacturers £160,000.[22] Medical warnings against some potions did not, by any means, represent an homogenous campaign by all medical practitioners against all proprietary drugs, although some political and medical campaigners might well be accused of considering all proprietary drugs illegitimate.[23] An example of a blanket attack upon the entire industry, delivered by a medical practitioner, can be found in the much quoted (and misquoted) statistic calculated by Dr William Murrell, Lecturer on Pharmacology at the Westminster Hospital in London, who noted in 1907 that "15,000 children are killed every

all British communities to doctor themselves by the use of tabloids and pilules, and other preparations of that kind." Commonwealth of Australia, *Parliamentary Debates*, (Senate and House of Representatives. Session 1905) 1906, **xxv**: 637.

[16] Porter and Porter, op. cit., note 8 above, p. 279.

[17] See, for example, *Aust. med. J.*, 1863, **8**: 148–9; Peter Bartrip's history of the *British Medical Journal*, discusses the journal's resistance to excluding proprietary drug advertisments. After fifteen years of pressure from the American Medical Association, the *Journal* adopted a policy similar to that of the *Journal of the American Medical Association*, although it was ineffectually implemented and some proprietary products were still being advertised in the 1930s. P W J Bartrip, *Mirror of medicine: a history of the British Medical Journal*, Oxford, *British Medical Journal* and Clarendon Press, 1990, pp.198–202.

[18] Young, op. cit., note 6 above, pp. 22–214.

[19] New York's *Times* and Philadelphia's *Ledger* took a stand against proprietary drug companies. Edward Bok, 'The physician and the nostrum', *J. Am. med. Ass.*, 1907, **48**: 688. British and Australian newspapers were reluctant to do so because of the long term problem in both these countries of intense concentration of media ownership. The British Medical Association lamented this situation as they were unable to have their worries about the safety of some proprietary drugs covered in the press: British Medical Association, *More secret remedies: what they cost and what they contain*, 2nd ser., London, British Medical Association, 1912, p. 252. Although Neville Hicks has discussed some aspects of the struggle to control the ways in which proprietary drug companies were allowed to advertise in newspapers and magazines, he has not addressed this issue at length, and there is still interesting work to be done uncovering the ways in which drug producers controlled the press in both Australia and Britain. See Neville Hicks, *This sin and scandal: Australia's population debate 1891–1911*, Canberra, Australian National University Press, 1978.

[20] Young, op. cit., note 6 above, pp. 211–25.

[21] Bok, op. cit., note 19 above, p. 688.

[22] Manderson, op. cit., note 5 above, p. 52.

[23] As an example of this attitude of wholesale dismissal of the entire proprietary drugs trade that Manderson refers to: "The Queensland delegate to the 1913 [interstate conference on uniform food and drug laws] conference explained that the object 'was really to have the effect of destroying the patent medicine trade, as it was not considered a legitimate trade'". Manderson, op. cit., note 5 above, p. 82.

year by soothing syrups and other similar preparations".[24] Most doctors, however, recognized that many of the soothers, if carefully administered, *were* effective against summer diarrhoea. In his *Illustrated Australian medical guide* published in 1900, the Surgeon Superintendent of New South Wales, Dr Philip Muskett recommended that one of the popular proprietary medicines, Chlorodyne (originally known as Dr J Collis Browne's Chlorodyne), a mixture of chloroform and morphine, always be kept in homes with infants. In cases of infant diarrhoea, Dr Muskett wrote, "a bottle of Chlorodyne is virtually indispensable in every household. There are times when the relief it affords is absolutely beyond all question. . . . Chlorodyne is of the greatest possible benefit".[25] In general, however, it can be said that, from the 1850s onwards, the medical press became increasingly dubious about the safety of potions produced by the drugs industry—primarily because the lack of regulation meant that producers could alter ingredients, including the proportion and strength of opiates, without legal stricture and without any printed warnings that they had done so.

Until the twentieth century, "teething" was often recorded as a cause of death by coroners, reflecting widespread popular experience that, as one American mother wrote in a letter in 1825 "the period of teething is filled with terror to a mother's imagination and I had looked forward to it with increasing anxiety".[26] Usually, contaminated food or water given during weaning caused diarrhoea and led to these "teething deaths" and yet, throughout the nineteenth century, neither recourse to boiling nor even careful hygiene were the preferred solutions. Proprietary teething powers were the most likely popular remedy used to tranquillize crying and feverish infants. They were typically based upon calomel, or chloride of mercury, and the inclusion of opium in all proprietary soothers was slowly decreased as legislation confining the sale of opiates made its way through British, European and colonial parliaments,[27] principally in the form of Pharmacy Acts, Pure Food and Drug Acts, and sometimes Poisons Acts. By the end of the century, numerous court actions had ensured that most soothers no longer contained opium and were usually a mixture of sugar, alcohol and potassium bicarbonate or magnesium carbonate.[28] Along with proprietary soothers and teething mixtures, proprietary narcotic lozenges, prepared with morphine and opium, or tinctures of opium, were sold by chemists and confectioners as sweets for children.[29] Door-to-door salesmen sold opiate-based medicines and commonly left samples on the doorstep if no one was home. Dr John Fulton, secretary of the State Board of Health in New South Wales, explained in the 1907 Royal Commission's *Report* that it was a potentially lethal habit, as children playing in the street had easy access to the free samples.[30] Yet, it was not until 1925 that this practice was controlled, when the

[24] Dr William Murrell quoted in *Report of the Royal Commission on Secret Drugs, Cures and Foods*, (second session 1907) 2 vols (hereafter *Report*), Commonwealth of Australia, *Parliamentary Papers*, 1907, vol. 2, p. 423.

[25] Philip E Muskett, *The illustrated Australian medical guide*, Sydney, William Brooks, 1900, p. 921.

[26] Nancy Schrom Dye and Daniel Blake Smith, 'Mother love and infant death, 1750–1920', *J. Am. Hist.*, 1986, **73**: 342.

[27] Despite the problems of using the term "western society", hereafter I will use it to denote Britain, western Europe, and colonies and former colonies of these countries.

[28] British Medical Association, op. cit., note 19 above, p. 150.

[29] Ibid., pp. 131–4.

[30] Ibid., p. 77.

Victorian Poisons Act made it an offence to "sell or offer for sale in any street or house to house . . . hawk peddle or distribute [drugs] as samples".[31]

Coroners' Records of Infant Deaths in Queensland

Proprietary medicines were a common feature of home medicine cabinets in the nineteenth and early twentieth centuries, even in remote isolated farming settlements, and they were administered by many parents as soon as children seemed restless or "cross" in the night. The records of the Queensland Coroner supply quite detailed accounts of the ways in which drugs were used in cases of infant sickness. Depositions throughout this forty year period are not uniformly detailed, and files from the 1860s and 1870s are typically brief. During the 1880s, a decade which commenced with Queensland becoming the first of the Australian colonies to pass a Sale of Food and Drugs Act in 1881, the depositions were more likely to give details of medicines administered than during any other decade in the nineteenth century. It seems that the coroner was attempting to gather a picture of drug abuse in cases of infant death, but whether this picture was typical of either the Queensland population or the Australian colonies in general is very difficult to judge. There are, in fact, at least two reasons why Queensland's home-medication patterns might have differed from the more densely populated colonies of New South Wales and Victoria—Queensland's population was less aggregated in the big towns and cities and so, although the *per capita* ratio of doctors was commensurate with the national average, a higher proportion of the population lived long distances from medical aid, and membership of Friendly Societies was lower, decreasing the ability to pay for professional medical aid and increasing the tendency to self-medication.[32]

In the 1880s, the Queensland coroners deliberated upon ninety-eight deaths of infants as a result of sickness.[33] In fifteen of these cases proprietary medicines were named, having been administered by parents or guardians. Stedman's (or Steedman's) Soothing Powders were the most popular, being given in six cases, and Chlorodyne was administered in four, but other soothing syrups and infants preservatives were also used. In a further nine cases it appears that a chemist sold proprietary medicines off the shelf, or mixed other ingredients with a proprietary medicine. These cases combined would mean that at least one in four of these sick babies was given a proprietary medicine; if only those cases which clearly state this was so are counted, one in six and a half of the infants whose deaths were investigated by the coroner were dosed with proprietary products. In many of the inquests the coroner's jury failed to ask if the child had received medication, and some parents who were asked and gave negative replies would have had very good reasons for lying. The records show that prescriptions given by doctors determined the dosing in only eight cases,[34] because many doctors either did not give prescriptions or

[31] Terry Carney, 'The history of Australian drug laws: commercialism to confusion', *Monash University Law Review*, 1980–82, **7–8**: 165–205, p. 196.

[32] These statistics are presented in Lynette Finch, 'Caring for colonial infants: parenting on the frontiers', *Aust. hist. Stud.*, 1998, **29** (110): 109–26.

[33] This is the number of cases in which the infant lived at least one day, was not murdered or left to die, and died either as a result of sickness, or as a result of the medicine given because of the sickness—before s/he was two years old.

[34] JUS/N109; 84/475 and 494; JUS/N119; 85/283; JUS/N134; 86/379; JUS/N160; 88/473; JUS/N161; 88/517; JUS/N165; 89/94. Queensland State Archives. As all details of coroners' inquests are drawn from the Queensland State Archives that detail will be omitted from subsequent Justice Department references.

there is no mention of their having done so. The addition of ninety-four cases reviewed by coroners in the 1890s, when 17 per cent of all parents clearly stated that they had administered a proprietary medicine, results in an overall average of one in six of this small group of sick infants being dosed at home with a ready-to-use medicine during the last two decades of the century. Perhaps more significantly, witnesses claimed to have administered some form of medicine in ninety-six (one half) of the cases. In almost a third of these (twenty-eight cases) the medicine named was a proprietary drug. Many desperate parents had bought nostrums on the advice of chemists, while simultaneously trying what the neighbours recommended *and* what doctors prescribed. Alcohol—only gin and brandy are mentioned—was given, sometimes under doctor's instructions, in thirteen cases.

Martha MacDonald's story is typical of those parents whose tragic stories accompanied the statistics on infant mortality. One of the first things she did after taking custody of Charlotte O'Sullivan's illegitimate infant daughter in 1879, was to send her husband to the chemist for a bottle of a proprietary Infants Preservative.[35] Mrs MacDonald, of Charters Towers, planned to adopt the child and was not a professional baby-minder, nor could she be described as a baby-farmer.[36] She had no other children in her care and had already raised a family, all of whom had been regularly treated with Infants Preservative, a mixture of bromide and opium. "I got that because it is a nice soothing thing", she explained. "I gave the child some of this medicine before it took sick when it was cross. I had used it before for my own child and other children". She recalled giving the baby five drops in "a little warm water and sugar and it swallowed it" along with "a little castor oil". Despite these efforts to save the feverish child, she died in convulsions shortly afterward. In a hot summer November in 1888, a similar story unfolded as the German farmer parents of a baby girl, assisted by neighbours and the midwife who had delivered the child a few days previously, administered Chlorodyne after the child showed signs of having severe stomach pain. Despite the remote location at Deep Gully, Tent Hill, many miles from the nearest town of Ipswich, the couple already had Chlorodyne in their home, a fact which played a strong role in their decision on treatment of so young a baby. As the child's mother told the coroner: "The effect [of the Chlorodyne] was so good I did not think it was necessary to send for a doctor".[37] During that same summer, their nearby neighbour, Ottella Abraham explained that Dunne's Soothing Mixture was already in her medicine cabinet, when her five-days-old infant went into convulsions and died, just as two of her nine live-born infants had done previously.[38] When Ellen Kenna's three and a half month old son died in 1888, in Maryborough, she gave an account of how she had dosed the child with Atkinson's Royal Infant Preservative, an opium-based proprietary medicine she had used many times through the preceding twenty years as she raised eleven children.[39] At the end of the century, Matilda McDonald was one of the fringe-dwellers eking out an existence in a Depression-wracked tent community near Longreach. She had already lost one of her three children, when her six-week-old daughter, Daisy, also developed diarrhoea. Matilda, in keeping with the common pattern of self-medication, told the coroner that she administered

[35] JUS/N62; 79/87.

[36] For details on moves to regulate baby-farmers, including the impact of the 1905 Queensland Infant Life Protection Act, see M John Thearle and Helen Gregory, 'Child abuse in nineteenth century Queensland', *Child Abuse Negl.*, 1988, **12**: 91–101.

[37] JUS/N161; 88/511.

[38] JUS/N160; 88/467.

[39] JUS/N154; 88/17.

ten drops of a proprietary medicine to the sick infant: "I keep a bottle of 'the Royal Infants Preservative' in the house. I have been using this stuff for the last six years and given it to all my children . . . I buy it from a chemist in Longreach".[40]

Soothing Syrups were widely used, with four in particular—Mrs Winslow's Soothing Syrup, Atkinson's Royal Infants Preservative, Stedman's Soothing Powders and Chlorodyne enjoying widespread success in the Australian colonies. Paragoric (an aniseed flavoured camphorated tincture of opium) was also found in Australian homes until at least the first world war, and historian Marjorie Graham suggests it was still popular in the 1920s.[41] Mrs Winslow's Soothing Syrup, established in the 1840s, had headquarters in New York and London, and was probably the international bestseller of the proprietary soothers. Until the closing decades of the nineteenth century, Mrs Winslow's Soothers advertised in the press and on the label that "this preparation contains, among other valuable ingredients, a small amount of morphine".[42] Deletion of these words, following the passing of the British Pharmacy Act (1868), was not accompanied by a change in the ingredients, until several unqualified persons had been prosecuted for selling it.[43] During the 1890s the manufacturers of the syrup removed morphine from the mixture and added potassium bromide, so that by the twentieth century, the popular aniseed flavoured formula was half sugar, half water, 4 per cent alcohol, 2 per cent potassium bromide, and a small amount of anise oil.[44]

Atkinson's Royal Infants Preservative, produced by a Manchester firm, was another common product in Australian medicine cabinets. Its label proclaimed it suitable for:

> Wind, the Watery and Dry Gripes, Convulsions . . . to which so many children fall victim, but which may in general be prevented by the use of this Medicine. It is also happily calculated for allaying those excruciating pains which Children suffer in Cutting their Teeth, and will, by being judiciously used, render this operation of nature perfectly mild and free from danger. It is also equally efficacious in many other disorders to which children are liable, as the Rickets, Whooping Cough, Measles etc. . . .[45]

Early twentieth-century analysis revealed its sugar content to be only 9.9 per cent (perhaps explaining why it was less popular than Winslow's), its alcohol content 7 per cent, with potassium bicarbonate, and magnesium carbonate as the other ingredients.[46] Analysis by the British Medical Association of other proprietary soothers in the first decade of the twentieth century found that:

> The principal constituent of three out of the four is shown to be anethol or carvone, added in the form of one or more of the oils of anise, dill, and caraway. Two of the three syrups are alkaline, sodium bicarbonate being used in one case, and a mixture of potassium bicarbonate and magnesium carbonate in the other. The third contains potassium bromide. The other syrup examined is directed to be rubbed on the gums, after which it is, of course, swallowed gradually by the child; this is a preparation of hydrochloric acid, common salt, saffron, and honey.[47]

[40] JUS/N261; 98/114.

[41] Marjorie Graham, '"Don't delay—Buy a bottle To-day". Patent medicines in Australia', *Australiana*, 1991, **13**: 65.

[42] British Medical Association, op. cit., note 19 above, p.150.

[43] On the British 1868 Pharmacy Act see S W F Holloway, *Royal Pharmaceutical Society of Great Britain, 1841–1991*, London, Pharmaceutical Press, 1991, pp. 185–237.

[44] British Medical Association, op. cit., note 19 above, p. 150.

[45] Ibid., p. 150.

[46] Ibid., p. 147.

[47] Ibid., p. 147.

The Safety of Proprietary Medicines Questioned

The medical campaign against proprietary medicines began to have an impact upon medical practitioners from at least the 1860s. In their capacity as medical witnesses at inquests, doctors began forming the opinion that, in some cases, it was the medication, rather than the original illness, which had killed the child. In 1879, for example, Surgeon William Little had no doubt that "the doses of Infants Preservative given to [the deceased] would account for the death" and, indeed, for the deaths of other infants:

> It is understood to contain a narcotic which is much used at home for children as it soothes and stops them crying and is the cause of a great deal of infant mortality . . . I am aware from my own experience that this Infants Preservative is largely used.[48]

Sometimes, the parents had been unable to obtain a death certificate because the local doctor would not issue one if proprietary medicines had been given. Dr William Browne in Bowen insisted on an inquest because he had already "seen in Bowen several infants very nearly poisoned by what seemed to be very small doses of opiates". Called to a sick baby boy in 1878, he arrived to find:

> the infant in his mother's arms. I at once saw it was just dead. It was a small sickly looking infant and I at once noticed that the pupils of the eyes were considerably contracted. This immediately induced me to ask whether any medicine had been given.[49]

His evidence ended with a warning about "the great danger that people run, both as regards themselves and young infants by the administration of opiates in any shape or form". Yet, he had to admit that "the bottle produced contains ordinary Chlorodyne as dispensed by chemists". The coroner recorded that the child had died of "natural causes".[50]

During the 1880s and 1890s, comments in the coroners' registers indicated that anxiety about the safety of proprietary medicines was growing, as did the more confident nature of the warnings against some of the proprietary products which appeared in the early twentieth-century home medical guides. For example, calomel, a mercurous chloride which was commonly used in the nursery throughout the nineteenth century was the subject of a particularly grim warning in *Taylor's medical jurisprudence*, published in 1905— "although commonly regarded as a mild medicine, is capable of destroying life, in small doses, by causing excessive salivation with ulceration and gangrene, and in large doses by acting as an irritant poison".[51] Late nineteenth-century coroners' records also took on a more certain tone in their criticism of proprietary drugs: "this inquiry was held because it had been suggested to me that death was caused by an over-dose of a 'patent medicine' given as a soporific. I am now satisfied that such was not the case", a note in the Register's comment column declares of a case in 1888.[52] When tiny Mary McKillop died, Attorney General Henderson scribbled an instruction for: "the government Analyst [to] please read the evidence . . . and favour me with his opinion as to whether Atkinson's Royal Infants Preservative is a dangerous medicine".[53] Both of these cases involved

[48] JUS/N62; 79/87.
[49] JUS/N58; 78/114.
[50] JUS/N58; 78/114.
[51] F J Smith (ed.), *Taylor's medical jurisprudence*, London, Churchill, 1905, p. 454.
[52] JUS/N154; 88/175.
[53] JUS/N245; 96/368.

Atkinson's Royal Infants Preservative but evidence of other patent dosing of children was eliciting similar comment during the last two decades of the century.

While the trend towards medical suspicion of proprietary products is, therefore, documented, what is not so clear is whether this professional anxiety was reflected in any way in the colonial home. There is no doubt that Australian parents readily embraced proprietary medicines, especially those designed for infant use. Indeed, the 1907 Royal Commission on Secret Drugs, Cures and Foods, chaired and researched by the former foundation President of the New South Wales Chamber of Manufacturers, Octavius Charles Beale, reported that, by the turn of the century, Australians had the highest per capita consumption rate of these medicines in the western world.[54] In 1905, for example, proprietary medicines constituted almost one per cent of all imports into Australia, and 1.3 per cent of products imported from the United Kingdom and the United States.[55] In 1913 Australian proprietary drug stocks were estimated to be worth £3,125,000.[56] These high popular consumption rates suggest that the medical message was not permeating through to the general public at all. Coroners' depositions are non-conclusive. After all, they depict only tragedy and never success in infant rearing. Depositions cover a range of responses, from naive trust in the products—sometimes throughout successive infant fatalities in the same family—to deep suspicion. The depositions *were* detailed enough to depict parental feelings about medicines and, overwhelmingly, they expressed only disappointment that the drugs were not effective. In 1882 Hulda Somers' six-month-old teething baby's life was not saved by the homeopathic medicine she, like many German farmers, favoured,[57] so, in the following year, when her new baby also developed diarrhoea, she turned instead to the remedy recommended by her nearest chemist. She told the coroner that "some of Mrs Winslow's Soothing Syrup was given to it".[58] When that baby died too, her testimony indicates disappointment that, like the homeopathic medication, the proprietary medicine "did not do it any good", but it does not indicate any suspicion that it had done harm. Her mother, also called to give evidence, repeated the phrase.[59] When Anna Schmidt lost her two-month-old daughter in 1883, she testified that two of her four children had died in the same way, yet neither she, nor the coroner's jury, seemed to suspect a connection between this third death and the aconite and mercury pills with which she treated the child for diarrhoea. The deaths of the other children were not subject to an inquest and their mother was not asked if they had been similarly dosed.[60]

These were cases in which it is highly likely that the infant died of diarrhoea rather than poisoned by the treatment but, even in those instances where opiate poisoning did occur, parents may not have realized what they had done. Cases involving extraordinary carelessness (rather than malicious intent) capture not only the ignorance of those specific parents but also a more widespread culture of complacency about the potentially

[54] *Report*, op. cit., note 24 above, vol. 2, p. 350.

[55] In 1905, the invoice value of imported proprietary medicines was £300,000 (*Report*, op. cit., note 24 above, vol. 2, p. 326); total imports for 1905 were £33.5 million, with £18.4 million and £4.6 million imported from the UK and the USA respectively. Alan Lougheed, 'International transactions and foreign commerce', in Wray Vamplew (ed.), *Australians: historical statistics*, Broadway, Fairfax, Syme & Weldon, 1988, pp. 196–7.

[56] Manderson, op. cit., note 5 above, p. 52.

[57] JUS/N86; 82/373.

[58] JUS/N92; 83/208.

[59] JUS/N92; 83/208. There were many cases in which these words were repeated.

[60] JUS/N92; 83/326.

dangerous nature of narcotics. For example, three-month-old Harry Thomas, who developed diarrhoea in the far northern township of Bowen in 1878, was obviously not blessed with well-informed parents. When Harry became sick, his parents administered Chlorodyne, which was already in their home, having been bought earlier from the chemist.[61] Like most nineteenth-century opiates it came with clear instructions that the bottle had to be vigorously shaken before use and that doses had to be carefully measured. Harry's parents did this but, unfortunately, they failed to consult each other. Over the infant's last three days his mother, Inge, alternatively gave him a teaspoonful of castor oil and corn flour with two drops of Chlorodyne, while his father, Edward, recalled that:

> about three days ago the child got loose in his bowels . . . when I heard the child crying violently I gave him two drops out of the bottle . . . I am not aware that my wife knew of my giving the Chlorodyne to the child.

Later, he said, they were together when she "put some of her own milk in a spoon and I dropped two drops of Chlorodyne in it and my wife gave it to the deceased". Such carelessness was presumably not the norm, or the coroner would have been forced to investigate many more cases of infant poisoning, but it was the extreme end of a general pattern of long-term complacency born of overfamiliarity with proprietary drugs.

Obviously, not all parents were trusting or careless. While Harry's parents had no one but themselves to blame for his poisoning, Margaret and Joseph Parker clearly blamed the chemist who mixed the preparation which killed their infant son, Henry, in Ipswich in 1866. The baby was teething and had developed severe summer diarrhoea and fever. The doctor prescribed laudanum (a mixture of tincture of opium and alcohol) and the chemist, Mr Fitzgibbons, mixed the medicine based, supposedly, on the doctor's script. Yet when Margaret gave the child the recommended dose of one dessertspoonful, she was alarmed at the sudden reaction:

> the child appeared very heavy and stupid like and was rolling about with his eyes closed. I then told my husband that there appeared to be an alteration in the child for the worse and that I would not give any more of the medicine to the child until I should see the Doctor. I then sent for Dr Von Fossberg at about one o'clock and in the mean time I put a mustard plaster on his stomach. On my daughter's return she told me that the Doctor said that he was going to church[,] that when he came out he would see the child. I did not however repeat the medicine but waited until the Doctor should come. He came at about half past 3 o'clock and he found fault with my not having given more of the medicine to the child. He then gave a teaspoonful and directed me to give the child the same quantity every hour[,] which I did until five o'clock, before I gave him the last dose I saw a change come over the child. His lips became dark and there was a white circle round the mouth. After I gave him the last dose he went into convulsions. Dr Von Fossberg came and put him into a warm bath and rubbed him with mustard. He was in the bath for about two hours, cold water at the same time being poured upon his head, he was then taken up and wrapped in a warm blanket[,] the doctor then told me to put him into the warm bath again and take him out immediately and wrap him in a warm blanket. Then Dr Rowlands came looked at the child and tasted medicine [*sic*] and asked who prescribed the medicine which I told him. At this moment Dr Von Fossberg came in, the medical gentlemen went down stairs, the bottle with the medicine was sent for, I sent it, the two above mentioned medical gentlemen then returned with the stomach pump which was used on the child who died while it was being used.

[61] JUS/N58; 78/114.

Dr Rowlands reported that, "I thought it smelt very strongly of laudanum" and that "a dessertspoonful of the mixture contained in the small bottle would be sufficient to cause the death of a child of that age". The baby's father became deeply suspicious of the chemist during his child's sickness and death and took the precaution, before giving the bottle to the boy who had been sent to collect it, of pouring "a small quantity of the mixture into a wine glass and . . . transferr[ing it] into a small bottle". Dr Rowlands testified that the exhibit presented by Mr Fitzgibbons and Dr Von Fossberg as being the original medicine did not smell as strongly of laudanum as he had recalled the mixture had smelt. The coroner found that "having considered the evidence given in the case of Henry William Parker an infant about four months old [*sic*] I am of opinion that the deceased came to his death in consequence of the medicine prescribed for him by Dr Von Fossberg having been improperly made up in the shop of Mr Fitzgibbons, chemist, Brisbane Street, Ipswich and in no other way."[62]

Twenty years later, Margaret, the mother of ten-month-old John Cope, gave him a Stedman's Soothing Powder at ten o'clock one evening in 1884. She quickly became aware of a change in his state, and was immediately suspicious of the proprietary medicine. The child, she told the coroner's jury:

> appeared to be the same until four o'clock in the morning when he went off to sleep for about an hour. I then gave him a drink of milk and water. At seven o'clock in the morning . . . I noticed his hands getting cold and he appeared to be getting weaker.[63]

Dr Thompson, who was attending a patient nearby, was called and he arrived an hour later and told her that her baby "was under the effect of opium". Despite his evidence that he "found it moribund and evidently dying from the effects of a narcotic poison", he did not tell Margaret this. Rather, he advised giving an injection of coffee and five drops of brandy every three or four hours" until he would return at five o'clock that afternoon. The infant died at noon. The doctor testified that:

> I don't think it would be safe, in fact I would not myself venture to administer such a dose to a child ten months old unless under very extraordinary circumstances. I consider Steedman's Powders is a dangerous medicine to be administered under any circumstances.

Acts Relating to the Sale of Food and Drugs

The Cope case stands at the intersection of a number of significant historical changes in laws pertaining to the use of narcotics in general and proprietary drugs in particular—changes not only in Queensland, but also throughout the western world. Like the doctor, Margaret had made the connection between the soother and her son's death, despite the fact that she had previously dosed him and her older child with the product. At least twenty years of medical warnings about these products had permeated into Margaret's world—she *was* cautious about the drug. In fact, when she bought the soothers from Mr Fitzgibbons, the chemist, she asked the assistant on duty what was in them. Her evidence states: "He said that we are not supposed to know what is in them but we sell a great many."[64] This

[62] JUS/N13; 66/188.

[63] JUS/N113; 84/610.

[64] JUS/N113; 84/610. I have not been able to ascertain if this chemist, located in the Brisbane suburb of Fortitude Valley, was the same Mr Fitzgibbons who mixed the fatal dose which killed Ipswich infant, Henry Parker.

extraordinary statement indicates the reaction of ordinary people to the fact that, throughout the nineteenth century, drug producers had successfully defended their corporate right to secrecy and, in the process, also protected the dispensers of the drugs from litigation in cases involving lethal doses. This was clearly translated into law in the Queensland Sale of Food and Drugs Act of 1881, soon copied by most Australian parliaments throughout that decade. New South Wales was the notable exception, resisting any similar act until 1907, when the Pure Food Act was passed. These Acts prohibited the sale of food and drugs containing injurious ingredients and made it a crime to substitute fraudulently any drug for another. Each one contained a clause, copied from the original British Act, which enshrined a common law principle that ignorance was a reasonable defence. The Act provided that:

> no person should be liable to be convicted under . . . the Act . . . if he showed to the satisfaction of the court before whom he was charged that he did not know of the article of food or drug sold by him being so mixed, coloured, stained, or powdered as in either of those sections mentioned, and that he could not with reasonable diligence have obtained that knowledge.[65]

In New South Wales this common law principle was tested, at the end of the century, when the Sydney retail firm Foy and Gibson were prosecuted by the New South Wales Crown Law Department for supplying white spirit (probably potato spirit) to the colony's asylums, instead of the brandy which they claimed to have been dispensing. They successfully argued that, as retailers, they had not analysed the liquor and did not know that the French company from whom they had purchased it had substituted a cheaper spirit.[66]

Along with the protection afforded by this principle, drug traders were also protected by the general reluctance to prosecute professional pharmacists and medical practitioners, even when gross negligence was clearly present. Both the Cope case and the Parker case were examples where coroners' inquests determined that drugs sold by a chemist (possibly the same chemist), and administered according to the printed instructions, had killed an infant, yet in neither case had the dispensing chemist been prosecuted. In the *Report of the Royal Commission on Secret Drugs, Cures and Foods* (1907), Commissioner Beale deplored this fact, arguing that there was:

> an absolute necessity for express statutes in Australia to . . . define crimes and punishments within the domain of healing. Life and health are the primal considerations, yet we have all seen, by a thousand instances, how ineffectually they are guarded.[67]

While professionals who erred were generally protected from retribution, the Cope case illustrates another nineteenth-century pattern—the tendency to blame the mother in cases of infant death. Margaret's words, "I got the powders from Mr Fitzgibbons a chemist in the Valley, the assistant who served me gave me no caution", provide some illumination of her response to the coroner's official verdict that her child had died from "effects of a powder administered by the mother".[68]

Every nineteenth-century Australian and American[69] legislative move against proprietary drugs was based upon either a British Act, or a Bill which had, at that time,

[65] *Queensland Parliamentary Debates*, (Legislative Assembly) Fourth Session, 1881, **xxxv**.

[66] *Report*, op. cit., note 24 above, vol. 2, pp. 339, 356.

[67] Ibid., p. 366.

[68] JUS/N113; 84/610.

[69] Young, op. cit., note 6 above, p. vii.

not been successfully passed through the British parliament. The British Sale of Foods and Drugs Act (1875) formed the basis of the colonial Food and Drugs Acts, and played a significant role in the history of legislative management of drug production, especially in the production of drugs designed for the home treatment of children. As well as controlling pharmaceutical production and sale, the Food and Drug Acts aimed to control adulteration of beer and spirits, additives to bread and wheat products, and to police some stages of milk production and storage. Taking advantage of new chemical analysis techniques, the Acts empowered governments and local authorities to appoint analysts to examine samples of food and drugs procured by inspectors, including patent medicines.[70] First of the Australian colonies to enact a Sale of Foods and Drugs Act was Queensland in 1881. The government's relatively early emulation of the British Act is probably explained by its location in the tropics and sub-tropics. As a result, the population of the vast colony was greatly affected by summer diarrhoea and other health problems associated with food contamination. The Queensland Act was, as the Premier explained, "virtually the same as that which had been in operation in England for the last five years", with one alteration—the shortage of skilled chemists in the sparsely populated colony resulted in only one government Analyst being appointed for most of the nineteenth century, with the first, Robert Marr, starting work in May 1882.[71] The inquiry into John Cope's death was Marr's first case involving an infant poisoned by a proprietary medicine.

The ability to analyse proprietary products opened many doors for those committed campaigners who struggled to enforce some degree of control of proprietary drug production, and it greatly undermined the political and economic power of the industry. Despite the continued popularity of proprietary medicines, we can see clear evidence of at least a half century of mounting medical anxiety about the safety of any products containing opium or its derivatives. Yet laws controlling the production and sale of the products were slow in their progress through parliaments throughout the western world. The economic power of the conglomeration of producers explains to a large degree why this was so, but it is not the only explanation. In a *laissez-faire* economy, protagonists of legislative control found that unless they argued in free enterprise terms, they could not advance their cause. They found it very difficult to persuade legislatures to intervene in any way which could constitute a negation of the rights of manufacturers to produce and sell their product. Even when this was a poison and links to crime, including murder, could be established,[72] reformist politicians found it very difficult to convince legislatures that such products were different, and should be treated differently in law, from other commodities. While medical professionals, chemists, and population theorists could see that life-threatening products such as opium, poisons such as arsenic, and, by the end of the century, food preservatives as well, should be legally categorized as distinct from other

[70] *Queensland Parliamentary Debates*, (Legislative Assembly) Fourth Session, 1881, **xxxv**.

[71] 'Blue Book for the year 1882', *Queensland votes and proceedings*, 1883–1884, p. 1702.

[72] Carney begins his history of Australian legislative control of drugs in the colony of Victoria, where the Vagrancy Act (1852) was designed to control non-medical use of drugs. This Act was copied from British legislation which authorized action against those people "thought to pose a greater than average risk of turning to crime". Concern with "hocussing", or stupefying victims in order to rob them, which was reported to be common on the gold fields, was the basis of this move, but it was joined by societal concern about the widespread use of opiate-based proprietary medicines for home treatment of children. Carney, op. cit., note 31 above.

consumer goods, political and economic opponents could not. This was illustrated when, in 1857, the upper house of the colony of Victoria blocked the passage of the Arsenic Bill. The Bill, a copy of the British Arsenic Act (1851) was drafted to regulate the safekeeping and sale of arsenic and other poisons. Their efforts to include proprietary soothers and other proprietary medicines commonly used on children were unsuccessful after parliament sent the Bill to a Select Committee for examination. The Select Committee was swayed by the view expressed by James Palmer, the president of the Upper House, that "it is an un-English thing to place restrictions upon a trade more than are necessary".[73] The Bill was subsequently amended with proprietary preparations being excluded, even though opium, morphia and laudanum were all covered and were required to be kept in a locked safe, labelled as poison (except when sold under prescription), and could not be sold by lodging houses, hotels, and shop-keepers. Pharmacists and druggists successfully lobbied to stop passage of the Bill and it was not until 1876 that its main aims (still excluding mention of proprietary medicines) were finally enacted, in the form of the Victoria Pharmacy Act.[74]

The Campaign to Control Proprietary Drug Companies

The international campaign to control the activities of proprietary drug companies, involved three major groups—on one side the proprietary drug producers supported by tabloid newspapers whose profits were largely derived from the advertisements of nostrums;[75] and on the other a consortium of increasingly professionalized medical practitioners,[76] along with racial theorists and demographic ideologues. This latter category was particularly important in Australia, largely due to the efforts of the tireless New South Wales campaigner, and chairman of the first Commonwealth enquiry into proprietary drugs, Octavius Beale.[77] Caught in the middle were the parents of infants, many of whom relied heavily upon proprietary medicines to soothe teething babies and to treat diarrhoea.

During the closing decades of the nineteenth century, the medical profession's increasingly confident and numerous warnings about proprietary drugs were seized upon and amplified by a new political lobby group of non-medical non-scientific professionals who had an ideological interest in the quality of the population. Beale was such a person. From the late eighteenth century, the theory of population degeneration, first discussed by biologists in the context of the animal world, but during the nineteenth century applied to

[73] Ibid., p. 173.

[74] Ibid., p. 174.

[75] Manderson, op. cit., note 5 above, p. 52.

[76] On the professionalization of medical practitioners in Australia, see Lewis and MacLeod, op. cit., note 10 above. Phillipa Martyr's study of the struggle between what became known as orthodox medicine and alternative or quack medicine provides a lively summary of many experimental and untested medical theories; see Martyr, op. cit., note 9 above. For studies of the Victorian medical profession, see T Pensabene, *The rise of the medical practitioner in Victoria*, Canberra, Australian National University Press, 1980; and Evan Willis, *Medical dominance*, Sydney, Allen & Unwin, 1983.

[77] Other campaigners and authors were more important at given moments, and Neville Hicks's study of population theory in Australia accords Beale only a secondary role, yet the length of time that his campaigns continued, the number of letters, lobbying visits, and the relentless nature of his campaigning over a thirty year period, shows Beale to have been a very important figure in the population debates in Australia. On the theories which were favoured during the late nineteenth and early twentieth century, see Hicks, op. cit., note 19 above, pp. 79–102.

humans as well, had produced a widespread anxiety in educated circles about the quality of the human species. The theory that different "races" of humans might degenerate or decay intellectually, physically and morally outside their "natural" context was the subject of many articles in journals, newspapers and books, and was widely accepted until well into the twentieth century.[78] That the Britons in the Australian colonies were literally "displaced" and might, therefore, be degenerating was a serious concern until the end of the nineteenth century.[79] The theory appealed to many intellectuals and formed the basis of the "science" of eugenics,[80] phrenology and the popular "race suicide scares" of the late nineteenth and early twentieth centuries.

These mostly middle-class, well-educated professionals had a great deal to say about proprietary medicines, but none more so than the extraordinarily energetic Beale. A strong nationalist, Beale believed that the Australian population was suffering from both degeneration and the international tendency of the birth-rate to decline. He blamed the selfishness of women who used contraceptives and had abortions, and the widespread use of proprietary drugs and preservatives in food. Convinced that the combined practices were injurious to infant health and directly impacted upon the quality and quantity of Australia's population, he devoted his considerable political and economic power to a two decade war with proprietary drug companies. Along with the chairman, Sir Charles Mackeller, Beale was an influential figure in the 1904 Royal Commission on the Decline of the Birth-rate and on the Mortality of Infants in New South Wales [81] and played a leading role in ensuring the report was subsequently received and noticed by colonial and British legislatures. In 1906 he convinced the Prime Minister Alfred Deakin to allow him to conduct the Commonwealth Royal Commission into Secret Drugs, Cures and Foods.[82]

[78] See J Edward Chamberlin and Sander L Gilman (eds), *Degeneration: the dark side of progress*, New York, Columbia University Press, 1985, especially Nancy Stepan, 'Biology and degeneration: races and proper places', pp. 72–97; and Robert A Nye, 'Sociology and degeneration: the irony of progress', pp. 49–72.

[79] Richard White's perennial study *Inventing Australia* has discussed the ways in which the amateur tradition of population analysis affected the cultural pursuits and political agendas of the Australian colonies. Richard White, *Inventing Australia: images and identity 1688–1980*, Sydney, Allen & Unwin, 1981.

[80] On eugenics in Australia see Mary Cawte, 'Craniometry and eugenics in Australia: R J A Berry and the quest for social efficiency', *Hist. Stud.*, 1986, **22:** 35–52; and Stephen Garton, 'Sir Charles Mackellar: psychiatry, eugenics and child welfare in New South Wales, 1900–1914', *Hist. Stud.*, 1986, **22**: 21–34.

[81] *Report of the Royal Commission on the Decline of the Birth-Rate and on the Mortality of Infants in New South Wales, Volumes One and Two*, New South Wales Legislative Assembly, 1904. The President of the Commission was Sir Charles Mackellar. His role in the Commission and his eugenicist views are detailed in Garton, op. cit., note 80 above, pp. 21–34, and in Philippa Mein Smith, 'Reformers, mothers and babies. Aspects of infant survival. Australia. 1890–1945', PhD thesis, Australian National University, 1990. The importance of the Commission itself, especially the steps taken to ensure the secrecy of the second volume is studied by Hicks, op. cit., note 19 above. Some details of the role and views of Octavius Beale are presented in Rosemary Pringle, 'Octavius Beale and the ideology of the birth-rate. The Royal Commissions of 1904 and 1905', *Refractory Girl*, Winter, 1973: 19–27; and Judith Allen, 'Octavius Beale reconsidered: infanticide, baby-farming and abortion in N.S.W., 1880–1939', in Sydney Labour History Group (eds), *What rough beast? The state and social order in Australian history*, Sydney, Allen & Unwin, 1982, pp. 111–29. Manderson also spends some time considering the historical importance of Beale's campaigns and his role as a commissioner. All these historians subscribe to the view that Beale was a zealot and a most peculiar man, and therefore dismiss his claim to historical significance in the battle to control proprietary medicines. See Manderson, op. cit., note 5 above, pp. 52–3.

[82] *Report*, vol. 1, op. cit., note 24 above. This report is discussed in detail in Manderson, op. cit., note 5, pp. 52–3.

Before the release of the report, which heavily attacked proprietary medicines, the government enacted legislation protecting Royal Commissions from actions in defamation.[83] The legislation was overdue; as James Harvey Young has pointed out, drug companies were not averse to using the law to pressure any group who threatened their interests.[84] In 1925, Beale gave extensive evidence to the Commonwealth Royal Commission into Health, again about the shortfalls in legislative control over proprietary drug companies. In conducting research for the 1907 Royal Commission, he travelled to Britain, Canada and the United States, visiting medical lobbyists, chemical analysts, politicians (including President Roosevelt), trade union officials, journalists and members of the London Chamber of Commerce. He was a man with a mission and when he released his enormous *Report* copies were sent all over the world. He claimed it was "used by the health authorities in the United States of America; it also had a great influence on legislation in New Zealand, and has been used by the Commonwealth Department of Trade and Customs".[85] At least one of his contemporaries located the 1907 *Report* at the centre of legislative change. The New South Wales Minister for Works, Arthur Griffith, wrote Beale a warm congratulatory letter in 1908 in which he stated "the Pure Foods Act which we have just passed into law is entirely the result of the startling disclosures made in your report to the Commonwealth Government on the subject of poisonous drugs and foods".[86]

The New South Wales parliament had resisted following Queensland's 1881 lead in enacting a Sale of Foods and Drugs Act (replaced by the Sale and Use of Poisons Act 1891) and so this was the first time that New South Wales state health authorities had been able to analyse contents of proprietary drugs. As with the various Sale of Foods and Drugs Acts, the Pure Foods Act meant that inconsistencies in compositions could be tested, claims that potions contained secret ingredients disproved, and the fact that drugs such as opium were present could be established. In the Cope case, the government Analyst Robert Marr was specifically requested to check the proprietary product with these questions in mind. He reported to the coroner: "I examined twelve powders and there was no determinable difference in their compositions".[87] Yet, even without the added danger of variations in the formula, Marr concluded that teething powders could be lethal: "The quantity of morphia that I found in the powder might prove dangerous to a child in ill health—no opium or preparation of opium should be administered to an infant unless under medical advice. I have had no experience in these particular powders. It is a patent medicine".[88] Yet, according to Beale, both in this Royal Commission[89] and in the 1925 Royal Commission into Health, charges of inconsistencies in the formulae *could* be proved against proprietary drugs. The Royal Commission on Secret Drugs, Cures and Foods conducted chemical analysis of a variety of teething powders sold throughout Australia and reported that:

> some packets contained double doses and others none at all! The stuff is made up of starch and calomel. The mixing is careless, being under no legal supervision where it is done . . . When

[83] *Report*, op. cit., note 24 above, vol. 1, p. 52.
[84] Young, op. cit., note 6 above, pp. 214–15.
[85] *Report of the Royal Commission on Health, Commonwealth Parliamentary Papers*, 1926, p. 1033.
[86] MS2281. Beale Papers, ms. 1904–1930. Australian National Library.
[87] JUS/N113; 84/610.
[88] JUS/N113; 84/610.
[89] *Report*, op. cit., note 24 above, vol. 2, p. 330.

mercurial poisoning follows, as to guide ourselves by the authorities it sometimes must, the mother will never know.[90]

Even after New South Wales passed its legislation, however, anti-drug campaigners such as Beale continued to condemn the fact that all the Acts had included a major concession to the drugs lobby which, they believed, undermined the Acts' effectiveness. Manufactures could avoid disclosure of their "trade secrets" by lodging their formulae with a central health authority. Following the federation of the Australian colonies in 1901, the anti-proprietary drug campaign moved into the federal arena. The Australian federation had instituted a states-rights constitution, with the federal government able to intervene only in cases involving external trade, so it was through the aegis of the Commerce (Trade Description) Act (1905) that anti-proprietary drug campaigners drafted regulations which prohibited the importation of medicines "unless they contained a label stating 'a true description of the goods'".[91] The Act specifically included proprietary drug preparations. Again, opposition to any intervention in free enterprise trading was raised and, again, anti-drug campaigners responded in similar terms. Basing their case upon the common law principle of *caveat emptor* or "let the buyer beware", they argued that if the buyer did not have enough information about the product, the very basis of commercial enterprise was being undermined. Explaining the link with drug production to the Australian Federal Parliament, Minister Bruce Smith said:

> It is a principle which . . . recognises that if one makes a bargain, and subsequently becomes dissatisfied with that bargain, there is no remedy, if the defect of which complaint be made could have been seen at the time of the purchase, because the buyer ought to have been aware of that which he could see for himself. If, on the other hand, there were a latent defect in the article, and there were an undertaking that it was sound, the defect being latent, the buyer could recover on the ground that he had been deceived. That is the law, and that very principle comes in here.[92]

Proprietary drug producers fought both the Australian Act, and its equivalent in other countries. Steedman, of Stedman's Soothing Powders, was a member of the London Chamber of Commerce, and he used his position there to lobby Winston Churchill to prevail upon the New Zealand and Australian governments to abandon the Bill.[93] In New Zealand, the Bill was withdrawn, until the publication of the 1907 Royal Commission's *Report* when "there was a reversal of legislation in New Zealand. Previously drug packers were allowed to issue secret drugs, there being no disclosure of formulae. But following the report, the dominion of New Zealand passed legislation to remedy that position".[94] While full disclosure of the contents of proprietary drugs on the labels was still the committed position of many campaigners well into the twentieth century, they were unable to convince any of the major parliamentary inquiries into the matter that it would serve any useful purpose.

Disclosure was consistently resisted by proprietary drug companies who argued that "it is impossible for trade-mark owners and owners of proprietary articles to disclose their trade secrets of manufacture, as such disclosure would annihilate their property by making

[90] Ibid., p. 76.

[91] Commerce (Trade Description) Act (1905), *Commonwealth Parliamentary Debates*, Senate and House of Representatives, 1906, **xxv**.

[92] Ibid., p. 637.

[93] *Report*, op. cit., note 24 above, vol. 2, p. 330.

[94] *Report of the Royal Commission on Health*, op. cit., note 85 above, p. 1033.

the trade names of their articles *publici juris*".[95] Two decades after Beale's Federal Royal Commission in 1907, drug producers were still explaining that "once the secret as to the ingredients of a proprietary medicine is disclosed, the whole of the trademark rights of the manufacturer in that proprietary medicine are lost. If the formulae [*sic*] be disclosed, there is nothing to prevent some other person making a preparation and selling it under the original trade name".[96] The problem faced by proprietary drug producers was that:

> Basic science and intellectual property operated more or less independently of each other until the twentieth century. . . . Processes, unless they led to a vendible product, were for a long time not patentable under English law . . . Other intellectual property regimes, like copyright, dealt with the arts and had no obvious relevance to science at all . . . Until about 1875, most technological innovations originated with individuals from non-scientific backgrounds.[97]

Evidence shows that their argument that the secret of their nostrums was the only intellectual property they owned, and that anyone could copy their formulae once the ingredients were revealed, was reasonable. For example, *The People's Home Library*, published in 1924 and sold throughout the United States, Britain and Australia,[98] published the recipes of the most popular patent medicines produced in the United States and Britain and sold throughout the world. Many of the compounds, such as the laxative Beecham's pills, or Lydia Pinkham's vegetable compound had come under particularly scathing criticism by Octavius Beale's Commission as being either useless or harmful. Yet *The People's Home Library* reproduced the recipes, available only by chemical analysis of the mixtures, so that those engaged in home treatment could recreate them in their kitchens. Not surprisingly, Dr Ritter explained, "patent medicine manufacturers sometimes change their formulas slightly so as to avoid having them become public".[99] A booklet published by the British Medical Association did the same thing, although it did not recommend use of the products. Rather, the medical profession had decided that "one of the most effective ways of preventing people being imposed on by such articles is to publish as widely as possible authentic information as to their composition and real value".[100]

As a general pattern, nineteenth-century laws relating to proprietary drug companies focused upon the activities and legal responsibilities and rights of the producer, while twentieth-century pharmaceutical and drug laws concentrated upon legal and moral responsibilities and rights of the consumer.[101] Parallel with this, a general shift in manufacturing trends also affected the production of medicine. In the early decades of the nineteenth century economic conditions favoured "the production of patent medicines and hocus pocus remedies by hundreds of small manufacturers, including . . . pharmacists".[102] By the closing decades of the century, the economic trend was towards aggregation and,

[95] *Adelaide Advertiser*, 28 Dec. 1906, cited in *Report*, op. cit., note 24 above, vol. 2, p. 329.

[96] Edward Harold Kidger, Member of the Proprietary Articles Division of the Sydney Chamber of Commerce, and Chairman of the Proprietary Association of Australasia, in evidence to the Royal Commission on Health, op. cit., note 85 above, p. 1028.

[97] Peter Drahos, 'Intellectual property law and basic science: extinguishing Prometheus?', *Law in Context*, 1992, **10**: 56–79.

[98] T J Ritter, MD, *The people's home medical book*, Toronto, Sydney, The Oceanic Publishing Company, 1924, p. 425.

[99] Ibid., p. 286.

[100] British Medical Association, op. cit., note 19 above, p. 255.

[101] Carney, op. cit., note 31 above, pp. 202–4.

[102] Lonie, op. cit., note 11 above, p. 31.

like other manufacturers, pharmaceutical industries were forced into large scale production. Using the example of the German drug company, Bayer, which developed and patented aspirin, John Lonie explains that:

> [Bayer] could afford to employ a large number of chemists and to equip its factories with sophisticated laboratories and productive equipment . . . Quackery and the makers of quackery's nostrums could not hope to compete with the Bayers of the world. Neither could the pharmacists or doctors whose functions would be restricted by such developments.[103]

A convergence of the early twentieth-century emergence of the notion of consumer rights, and late nineteenth-century production methods meant that "just on the eve of the introduction of strict food and drug laws in all States and the Commonwealth, patent medicines were on the way down, slowly but inevitably".[104] Yet, while this pattern is clear, historical reflection, which rests upon a theme of inevitability, belies the human effort that went into the struggle to bring the unregulated and chaotic proprietary drugs industry under control.

Conclusion

Parents, medical practitioners, politicians, lobbyists and ideologically committed campaigners all played a role in the story of nineteenth-century proprietary drug use and its eventual legislative control. Drug producers had a ready market base in the Australian colonies, where the hot summers made food preservation extremely difficult, creating conditions in which poor hygiene could be dangerous. The incomparable efficaciousness of opium in the battle against infant diarrhoea resulted, naturally enough, in its widespread use. Some of the case studies presented here suggest that this very success could lead to parental complacency. Proprietary products based upon opiates were common in home medicine cabinets, even in remote areas long distances from chemists or doctors, and their ubiquity belied the caution with which they had to be treated. Overdosing was the outcome if parents were careless in measurement and preparation. In at least one case presented here, this is probably what killed the infant. The proprietary companies fought determinedly against regulation and yet, with hindsight, it can be argued that regulation would have assisted them to counter the arguments of their bitter opponents, the medical profession and population ideologues like Octavius Beale. Once it was available, chemical analysis was not consistent in supporting claims of varying strengths and yet the proprietary drug companies behaved as if the allegations were correct. They changed formulae, poured money into advertising which insisted there was absolutely no danger, and fought governmental attempts to bring them under the umbrella of poisons or drug Acts. In the process, they turned reformers like Beale into implacable opponents. In a century in which a thriving population was the very symbol of national greatness, infant health acquired political significance. While infant formulae, such as soothers and teething products, were increasingly isolated as the enemies of national vigour by politicians influenced by eugenic arguments, the evidence of coroners' inquests presented here points to a pattern in which medical suspicion of proprietary drugs was also

[103] Ibid., p. 31.

[104] Ibid., p. 31.

strengthening. In the 1860s unease was expressed in medical expert depositions but, by the 1880s, strong suspicion was the more likely response of doctors presented with a deceased infant who had previously been dosed with a proprietary medicine. Less conclusive was the evidence that a similar shift in attitude could be detected on the part of parents. High export figures indicate sustained sales of proprietary drugs into the twentieth century and, although it can be said that the early depositions do not record parental suspicion and later cases do, it is not a strong pattern. It is clear, however, that, in the general history of juridical control of medicinal drug production, infant mortality rates were the key to political and medical campaigns to shift this lucrative and politically powerful industry from a position of unfettered freedom from regulation to one of legal accountability.