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ROMANCING THE MACHINE:

The Enchantment of Domestic Technology in the Australian Home, 1850-1914

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of the degree of Doctor of Philosophy

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ABSTRACT

Romancing the Machine takes as its focus the Australian home and its response to new technology in the course of the nineteenth century. It argues that the ability of the home to change and adapt to new circumstances says much about the technological responsiveness of society in general. The period investigated is particularly significant since at the very time the 'inventive genius of the age' was creating new machines for the home, the home itself was being seen as increasingly separate from the world of industry, of work and of machinery. *Romancing the Machine* therefore explores the means by which the contradictions underlying domestic technology were negotiated both in terms of the design and promotion of the machines and in the iconography of the home.

It begins where accepted interpretations end, with the admission that machinery in the home failed to reduce the time or labour expended in domestic work. It goes on to examine the motivations behind consumer responses to the machines on offer through analysis of five new technologies, relating to three major areas of household work: food preparation, clothing manufacture and clothing and household linen maintenance. In each case, the focus is on the interrelationship between manufacturer, retailer and consumer. Since women were the major consumers of domestic technology, it looks at the means by which they brokered this relationship through changes in the design, promotion and marketing of these new goods. Once this is done, it is clear that social and cultural factors — particularly the need to preserve and strengthen the domestic sphere — were far more important than economic ones in determining consumers' response. It is also apparent that new technologies did not provoke a simple, homogenous response but rather one that was complex and varied.

Critical to this thesis has been an examination of the material evidence. Where previous studies of technology in the Australian home have relied upon advertisements and retailers catalogues as proof of acceptance and use, this thesis deconstructs these sources to highlight consumer concerns. More importantly, by combining these sources with surviving records that document the material culture of the Australian home, it is possible to gain an insight into levels of acceptance of these new technologies. Once this is done, it is apparent that they enjoyed quite different degrees of success, and that social and cultural factors played a key role in persuading consumers to consume. Modernisation was therefore not a single movement — where households, seduced by the new, abandoned traditional practices — but rather a stop-start process, where developments in some areas far outpaced others.

Machines failed to revolutionize the home, not because of their inability to reduce time and labour spent on household work, but because householders were not looking for revolution but for further enhancement of the domestic ideal. Thus, whilst the speed of machine sewing

compared to hand sewing must have been an attractive feature, far more important was the machine's ability to be integrated into the family parlour as an 'attractive piece of furniture' together with the promise it held of providing access to the world of fashion. By contrast, although washing machines held out the possibility of reducing the heavy labour involved in the family wash, they were singularly unsuccessful. Neither the machine nor the task could be romanced by the home.

The response of the nineteenth century Australian home to technology can therefore be characterised by enchantment. By romancing the machine, the home ensured the preservation of the 'merry family circle' removed from the world of work, and of machinery.

PREFACE

Much has been written about domestic technology in Britain and the United States. To date, however, the Australian home has rarely attracted serious scholars as a research site. *Romancing the Machine* seeks to go some way towards remedying this neglect, through an exploration of the response of the Australian home to the new domestic technologies of the nineteenth century. It developed from a curatorial curiosity as to why the one object I am offered most frequently as a donation to the Powerhouse Museum is the sewing machine. Of all the objects making up the material culture of the nineteenth century Australian home, why was this the one to survive? It was not simply that the sewing machine was portable; rather, the machine had come to symbolise the role of women within the family, and as such was treasured and passed from one generation to another. It is not uncommon to be offered machines made in the 1880s and 1890s, which were still in use a century later. Their survival could be interpreted as a tribute to the wonders of technology in the 'Age of Machinery'. Yet, looking at the design and fabrication of sewing machines it is apparent that they embodied not the wonders of technology but rather the domestic ideal. Indeed, sewing machines had been successfully romanced by the home and rather than being symbols of efficiency, they epitomised the aesthetic of the parlour.

My work has been inspired by the earlier research of Kylie Winkworth, Ann Stephen and Liz Coates for an exhibition that opened at the Powerhouse Museum in 1988. *Never Done* was the first major exhibition in Australia to recognise that women's tools were as much technology as men's and to give them equal importance in the history of Australian technology. At the same time, it opened up the possibility of applying to Australia what Susan Strasser has called 'imaginative reconstruction'. Sources for the history of women's work in the home are difficult to locate, and the exhibition displayed enormous ingenuity in finding contemporary descriptions of work practices. The experience encouraged me to believe that the sources were not only there, but could provide an important new reading of the Australian home.

In exploring this subject, it has been necessary to consult library and archive collections in Sydney, Canberra, Melbourne, Washington, D.C., and Delaware. I was fortunate to be writing this in Sydney, a ferry ride away from one of Australia's great libraries. But as my foray proved, it was not just their collections that make the State Library of New South Wales what it is. The staff in all areas — from photography to manuscripts — are unstinting in their service and I am particularly grateful to the evening staff whose commitment to providing access made this undertaking possible. In 1989, I was awarded a pre-doctoral fellowship in the National Museum of American History at the Smithsonian Institution. This gave me an opportunity to engage in full-time research, and brought me into contact with American

traditions in material culture research and interpretation. I was able to examine existing literature on domestic technology, the social construction of technology, consumer culture and material culture and to reinterpret it in an Australian context. I would like to thank Rodris Roth for her support of this project and for help in accessing this material.

Romancing the Machine has been written part-time over a period of five years while I have been employed as Senior Curator of Social History at the Powerhouse Museum. I am grateful to my immediate colleagues — particularly Charles Pickett — who had to add my work to theirs whilst I took leave to complete this thesis; and to the Director, Terence Measham and the Assistant Director Collections, Jennifer Sanders, who gave me leave Whilst this might not be the quickest way to write a thesis, it has benefited from lively discussions with colleagues, and from the generosity of many members of the public, whose donations enrich our public museums, and who are always prepared to discuss the significance of their particular 'treasure'.

My interest in history owes much to the inspiration of my first teachers at Sydney University: Ros Pesman, Alistair McLachlan and Bob Dreher in different ways encouraged me to believe that I could make some contribution to the field. More recently, Aedeen Cremen has been generous in reading and commenting on the text. I owe a particular debt of gratitude to Peter Cochrane who, as my supervisor, has taken an enthusiastic interest in everything from egg beaters to cooking stoves and has managed the difficult job of being both critical and encouraging.

Finally, I would also like to acknowledge the assistance and advice of Dr James Broadbent from Historic Houses Trust, who patiently answered my many questions and always provided valuable suggestions as to sources. Dr Paula Hamilton of UTS was particularly generous in giving me access to her collection of material on domestic servants. Fiona Verge and Robert Kemp continued to be interested in the cogs and wheels of Victorian inventions well beyond what could be expected even from such old friends.

Working full-time and writing on the charms of the domestic circle, has meant that our own cheerful hearth has witnessed inevitable compromise. Lama has had to sit patiently watching me type through many sunny afternoons, undoubtedly perplexed by the peculiarity of humans staying inside in such good walking weather. And Roy has not only had to keep the home fires burning, but, more importantly, has been a thoughtful and generous reader of my text and unfailing in his support.

Kimberley Webber
Treetops, Blackheath
March 1996

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Introduction:

Romancing the Machine

I The Problem

Traditionally, technology is viewed from the perspective of its impact on the work process. Its benefits therefore are measured principally in terms of time and labour-saving. Arguing that such economic determinants do not predominate in the home, this thesis takes an alternative perspective: that the environment in which a technology enters has an impact on the development and indeed the market success of that technology. The 'environment' in this thesis is the middle class urban Australian home, which during the nineteenth century, was the principal site of spiritual, moral and social strength in Australia's colonial settlement. It was also a haven from the masculine world of machines and money, where time and labour-saving were the criteria for success. For technology to succeed in this environment, it had to take on the aesthetic of domesticity and be seen as a necessary part of the ideal, rather than a challenge to it. The 'enchantment of the domestic circle' was a powerful force in the nineteenth century and this thesis will explore the means by which the home successfully 'romanced' the machine.

Romancing the Machine takes as its focus the impact of new technologies on domestic life in nineteenth century Australia, with special reference to New South Wales and Victoria. Its purpose is twofold — to examine the histories of particular technologies relating to major household tasks, and to look more broadly at their contribution to an emerging culture of consumption. It asks why households purchased, or failed to purchase technologies, and why some, such as the sewing machine were runaway successes, whilst others either failed altogether or enjoyed a more qualified success. In so doing, this thesis will suggest an alternative way of reading the history of technological change in Australia. It will also challenge accepted notions as to why particular technologies succeeded in the marketplace where others failed.

This is not an attempt at a comprehensive history of domestic technology. Such general histories already exist for Britain and the United States, and little would be gained from repeating the exercise in Australia.[1] Instead, it looks in detail at five technologies that defined major categories of women's domestic work in the urban, middle-class Australian home during the period 1850 to 1914: the cast-iron cooking stove, a sampling of gadgets, the washing machine, the iron, and the sewing machine.[2] These case studies were chosen because they all (in theory at least) had the potential to alter the character of women's domestic labour and with that, the nature of the home itself. For whilst women have always used tools in their domestic work, the industrial revolution brought with it the possibility of transforming that work in the same way that the spinning jenny had transformed cotton milling.[3] The period was chosen since it marks an era in which new technologies were first being introduced into a domestic market, and concludes with the First World War and the arrival of the automobile, which would bring about a new era in domestic consumption and contribute to a gradual shift in Australian technological focus from Britain to America.

Earlier studies have focussed upon the degree to which new domestic technologies transformed the work of the home, creating what has been inaccurately termed the 'domestic revolution'. In a recent exhibition, *The Domestic Revolution* (1994), the curator argued that the kitchen, as the social nexus of the home, was a sensitive indicator of cultural

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1 For Britain see Caroline Davidson, *A Woman's Work is Never Done: A History of Housework in the British Isles, 1650-1950* (London: Chatto & Windus, 1983); Christina Hardyment, *From Mangle to Microwave: The Mechanization of Household Work* (Cambridge: Polity Press, 1988). For an overview of the literature in the United States see Judith A. McGaw, 'Women and the History of American Technology', *Signs*, 7 (4),(1982), 798-828. See also Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982); Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983).

2 In her study of housework, Ann Oakley identifies six core tasks in the twentieth century home: cleaning, shopping, cooking, washing up and ironing. In the nineteenth century, a seventh — and particularly onerous task — would have been sewing. Ann Oakley, *The Sociology of Housework* (Oxford: Basil Blackwell, 1985), 49.

3 E.P. Thomson points out that although the cotton mill is always taken as the symbol of the Industrial Revolution — and certainly cotton was the pace-making industry — change nonetheless came slowly. Half a century after the 'breakthrough' of the cotton mill, the proportion of cotton workers actually working in a mill remained small. E.P. Thompson, *The Making of the English Working Class* (Harmondsworth: Penguin Books, 1976), 210 ff.

change.[4] Yet, as I will argue, material evidence reveals that the kitchen was remarkably slow to change and its history was typified by resistance rather than revolution. In so doing, I plan to move beyond a focus upon technology to look at the interaction between a new world of goods and the Australian middle-class home. The striking thing about these 'new things' is, that at the very time they were promising to revolutionize the home, the home itself was taking on a new importance as haven from the world of industry and work. *Romancing the Machine* explores the means by which the contradictions underlying domestic technology were negotiated both in terms of the design and promotion of the machines and in the iconography of the home.

This story begins in the decades leading up to the discovery of gold, a discovery that transformed Australia from a convict society, dependant upon wool and trade, to an emigrant society with a far broader economic and manufacturing base, enjoying an extensive trans-Pacific trade with North America and Europe. Over two generations — between 1830 and 1914 — the material culture of Australian domestic life would be transformed in Spencerian fashion from simplicity to complexity, from generalisation to specialisation, from homogeneity to heterogeneity; notwithstanding, it retained its allegiances to a value system cultivated by colonists, of an imagined, if not imaginary, pre-industrial world.

Kerreen Reiger's analysis of the Australian home during the period 1880 to 1940 argues that it was typified by 'disenchantment', as the tendencies of modernization and the modern moved the home away from the control of women to the marketplace of professionals.[5] While it is unarguable that attitudes to the home — and women's roles in it — changed dramatically during the course of the century, my analysis reveals that the domestic environment itself was slow to change. Two factors contributed to this conservatism. First, as part of a migrant culture, middle-class Australians were keen to replicate the homes and

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4 Michael Bogle, *The Domestic Revolution* (Sydney: Historic Houses Trust of New South Wales, 1994), np.

5 Kerreen Reiger, *The Disenchantment of the Home: Modernizing the Australian Family, 1880-1940* (Melbourne: Oxford University Press, 1985).

living standards they had left behind, or had aspired to. Second, the very material basis of the home acted as a conservative influence. No matter what the colonial woman's commitment to the 'efficient home and efficient housework', she continued to labour in a 'workplace' that was decidedly old-fashioned with tools that were often little better than those her grandmother had used. Added to this, there was a level of resistance to the abandonment of what had come to seem traditional furnishings in favour of the streamlined and hygienic. The enchantment of the domestic circle was a powerful ideology which, over a century later, still has a contemporary resonance.

The interpretative framework of this thesis rests at the intersection of four areas of scholarship — the history of domestic life, the history of technology, the development of a consumer culture and the analysis of material culture. In each discourse, domestic technology holds a special place. Rarely have historians sought to determine the individual's response to technology, and even more rarely have they succeeded in determining what factors lay behind the success of a technology. In each case, the history of domestic technology sets up, and answers, a particular set of questions, to which the chosen case studies have specific reference.

II Methods

1. Housework and the History of Technology

Technology can be viewed from two perspectives: as artefact, the product of technical innovation, and as process, a means of organizing energy and utilizing resources.[6] Both the process and the product have been in existence since men and women began to make and use tools. Domestic technology is, therefore, not a phenomenon of the industrial revolution. However, what is unique in the nineteenth century is the degree of change that

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6 Deborah and William Andrews, 'Technology and the Housewife in Nineteenth Century America', *Women's Studies*, II (3),(1974), 309-328 at 315, 316.

affected every facet of domestic work, from the way food was prepared to the amount and type of clothing that was worn.[7]

The analysis and acceptance of housework as 'work', however, is a relatively recent phenomenon. Ruth Schwartz Cowan, Susan Strasser and Leonore Davidoff have pointed to the ironies implicit in women's use of technology in the home. Among them, Schwartz Cowan is generally credited with being the first to insist that historians of technology treat the industrial revolution in the home with the same interest as they had the cotton mill. In *More Work for Mother* (1983), she pointed out that the traditional interpretation of the industrial revolution took as its perspective the impact of technology on the home rather than the machine's presence within it. Yet, in the course of the nineteenth century, the home was subject to similar pressures as industry to become efficient, rational and time and labour-saving.

Following Schwartz Cowan's work, a substantial scholarship has developed around the relationship between the industrial revolution and the home, much of it dealing with the impact it has had upon women's work. The very fact that the English home was as much a site of the industrial revolution as the factory ran counter to the emerging, early Victorian, ideal of the home as haven from the world of commerce, and its mistress as removed from the world of machinery.[8] Until the 1840s, women's work in the home was called 'housewiferie', and housewives were married women who with their husbands were 'bonded' to the house (or 'hus'). The emergence of the use of the term 'housework' in England in

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7 Heidi Hartmann has identified four major divisions of domestic technology: utilities, appliances, foods and market sector services (such as commercial laundries). Heidi Hartmann, Capitalism and Women's Work in the Home, 1900-1930 (Unpublished PhD Dissertation, Yale University, 1974), 147.

8 In the past twenty years many studies of the 'angel in the house' have been published. For Britain see Catherine Hall, 'The Early Formation of Victorian Domestic Ideology' in Sandra Burman (ed.), *Fit Work for Women* (London: Croom Helm, 1979), 15-32; Leonore Davidoff, *The Best Circles: Society Etiquette and the Season* (London: The Cresset Library, 1973). For the United States, see Laurel T. Ulrich, *Good Wives: Image and Reality in the Lives of Women in Northern New England, 1650-1750* (New York: Oxford University Press, 1983); Glenna Matthews, *'Just a Housewife': The Rise and Fall of Domesticity in America* (New York: Oxford University Press, 1987); Nancy F. Cott, *The Bonds of Womanhood: 'Woman's Sphere' in New England, 1780-1835* (New Haven: Yale University Press, 1977); and Karen Haltunnen, *Confidence Men and Painted Women: A Study of Middle-Class Culture in America, 1830-1870* (New Haven: Yale University Press, 1982).

1841, and in the United States some thirty years later, provides clear evidence of the separation of spheres that is seen as characteristic of the impact of industrialisation. Work in the home became housework and paid work — almost by definition — took place outside the home.[9]

However, even more than her twentieth century counterpart, the housewife in Victorian England and Australia, as in the United States, was forced to confront the wonders of machinery on a daily basis, for the technologies that entered the home in this period were often extraordinarily complex. Successful operation of the cast iron cooking stove required an understanding of the physics of hot air and the working of flues and dampers. The sewing machine had over seventy individual parts requiring constant maintenance. Even the most elementary dressmaking necessitated an understanding of the arithmetic of scale and proportion. Nonetheless, the very essence of femininity was (and, as recent American studies reveal, remains) of someone unskilled in machinery.[10]

Histories of domestic technology have followed directions established by industrial histories, and thus have focussed on the 'revolutionary' potential of particular machines. This potential is usually defined in monetary terms through savings in time and labour. The conclusion drawn by Hardyment and Davidson in Britain and Strasser and Schwartz Cowan in the United States, is that the mechanization of the home was not revolutionary and that new technologies therefore did not impact on time spent in housework. Schwartz Cowan points out that while new technologies moved some processes — such as bread making and butchering of meat — out of the home altogether, others simply changed the *approach* to the work without changing the *amount* of work involved. This is borne out by studies of time spent in housework. Joann Vanek has shown that between 1924 and 1953 the

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9 Schwartz Cowan, *op. cit.*, 16-18. Of course, there continued to be a substantial amount of paid work in the house, particularly piecework, taking in laundry and ironing, and lodgers. See Leonore Davidoff, 'The Separation of Home and Work? Landladies and Lodgers in Nineteenth and Twentieth Century England', in Burman (ed.), *op. cit.*, 64-98.

10 A 1987 study by Ann Gray of the relationship between gender and technology found that women can operate extremely sophisticated pieces of domestic technology but often feel alienated from the leisure — or male technology — of the home. Thus women were able to use the microwave but thought themselves unable to programme the VCR. See Judy Wacjman, *Feminism Confronts Technology* (Sydney: Allen and Unwin, 1991), 90.

time spent in the United States on housework remained fairly constant although there was a reallocation of time between tasks. Reductions in time spent in sewing, food preparation and meal clean up were offset by increases in time spent in shopping, household management, child-care and travel. The introduction of the electric washing machine, whilst eliminating some of the heavy work involved in handwashing, did not reduce the time spent in maintenance of clothing and household linen (eleven hours a week).[11] Vanek and Hartmann offer the explanation that time saved in carting water or putting clothes through a wringer was spent washing more clothes more often.[12] Of course, as Schwartz Cowan argues, the major cause lies in the nature of housework itself which, unlike factory work, consists of a range of tasks that are performed in a fragmentary manner in isolated units. As these have proved impossible to systematise or streamline, the models of the assembly line and mass production simply cannot be applied.[13]

The question remains, then, as to why these new things were bought, for it would have been quite apparent to their proud owners that they did not suddenly have more time on their hands.[14] But time, and even labour-saving was not what they were looking for. As a 1929 survey of the use of time by farm homemakers revealed:

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11 Joann Vanek, Keeping Busy: Time Spent in Housework, United States, 1920-1970 (Unpublished PhD Dissertation, University of Michigan, 1973), 104, 105, 111. See also Joann Vanek, 'Household Technology and Social Status: Rising Living Standards and Status and Residence Differences in Housework', *Technology and Culture,* 19(3),(1978), 361-375. A 1987 survey of time spent on housework in Australia found that women spent an average of 36 hours a week on housework, whilst men spent 14 hours 24 minutes. *Sydney Morning Herald,* 7 May 1991, 1.

12 This view is supported by studies in Third World countries where there appears no difference between the amount of time spent in washing dishes in houses with running water and in houses without. Christine Bose, Philip Bereano and Mary Malloy, 'Household Technology and the Social Construction of Housework', *Technology and Culture,* 25 (1),(1984), 53-82, 73.

13 Ruth Schwartz Cowan, 'From Virginia Dare to Virginia Slims: Women and Technology in American Life', *Technology and Culture,* 20(1),(1979), 51-63 at 59-61; E.P. Thompson, 'Time, Work-Discipline, and Industrial Capitalism', *Past and Present,* 38 (1967), 56-97. This does not mean that factory methods were not tried in the home. Christine Frederick was one of a number of advocates of scientific management in the early twentieth century who analysed household tasks (such as potato peeling) and sought to demonstrate how they could be carried out in a more systematic and 'scientific' manner. Christine Frederick, *The New Housekeeping: Efficiency Studies in Home Management* (New York: Doubleday Page, 1918). Frederick was particularly popular in Australia and a number of women's magazines carried her syndicated articles.

14 Contemporary papers on domestic technologies often referred to the fact that they were not reducing the amount of work in the home. In the twentieth century, domestic economists have puzzled over this conundrum. In 1930, Margaret Reid concluded from a study of laundry equipment that ownership of washing machines simply enabled women to spend more time on ironing, sewing and childcare, and that the overall reduction in time spent was only two per

> With power driven equipment and the attendant saving of muscular energy, the housewife states that she washes more clothes, cleans her carpets and rugs better, irons more carefully, and prepares and serves her meals more attractively.[15]

Heidi Hartmann argues that women did not buy new technologies to save time, for any potential reduction in work in one area was used to raise standards in others. A cast iron stove thus offered the opportunity to prepare more complex meals; a sewing machine, to make fashionable clothes; an iron, to prepare starched white damask tablecloths. But such 'needs' are relative to the experience of individuals, and are far more difficult to assess as motivations for purchasing. Doubtless, this is one of the major reasons why the emphasis within histories of domestic technology is on mechanical 'progress'. It is much easier to look at a cast iron cooking stove and state that it saves fuel and provides greater flexibility in cooking methods, than it is to determine what qualitative measures appealed to the contemporary consumer. However, if one is to examine the interaction between manufacturer and consumer when such technologies were first introduced, it is necessary to use criteria which are quite different from those applied to the technologies of the cotton mill or the factory.

The powerful force of the ideal of the single unit family home, a respite from the world of work, presided over by a peaceful and loving 'angel', is further evidenced by the failure of material feminists to initiate their hoped for 'grand domestic revolution' through the institution of co-operative living. Dolores Hayden's work reveals the difficulty of overcoming the commitment of individual households to their own kitchens and laundries. These women recognised the failure of new technologies either to infiltrate the home or, once there, substantially affect the nature of domestic work. As Charlotte Perkins Gilman wrote in 1903, 'By what art, what charm, what miracle, has the twentieth century preserved alive the prehistoric squaw!'[16] However, their alternative of the 'kitchenless

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cent, 'This is not a marked reduction'. M. Wilson, 'Laundry Time Costs', *Journal of Home Economics*, XXII (1930), 735.

15 Inez Arnquist and Evelyn Roberts, *The Present Use of Work Time of Farm Homemakers* (1929) quoted in Hartmann, *op. cit.*, 256.

16 Quoted in Dolores Hayden, *The Grand Domestic Revolution: A History of Feminist Designs for American Homes, Neighbourhoods and Cities* (Cambridge, Mass.: MIT Press, 1982), 16, 17.

house' came up against the same resistance to change as did the new technologies themselves.

When change came to the home, it was not through particular machines, but through utilities: new sources of power, the provision of an internal water supply and sewerage. As Susan Strasser points out in *Never Done* (1982), new utilities had far greater impact upon domestic work and life than did individual technologies. She goes on to claim that only two innovations — the cast-iron cooking stove and the Dover eggbeater — significantly eased women's work. Strasser also emphasises that change, when it came to the home, came at very different times and in very different ways depending on the location, class and particular attitudes of the household. And, of course, with the changes came losses as well. Running water and the automatic washing machine meant the end of the communal laundry and the laundress and made this still onerous task an isolated one as well.[17]

Any examination of the 'domestic revolution' always returns to the fact that the home — and the domestic ideals it encompassed — was extraordinarily resistant to change. Technology did enter the home in the nineteenth century but did not revolutionize it. Instead, it was in turn domesticated. Essential to the success of the sewing machine, the most complex piece of domestic machinery (with the possible exception of the clock), was the fact that it was presented as a piece of furniture, and not a machine. Encasing the working of the machine in a cupboard or under a table, applying highly decorative features to all 'exposed' areas, and softening the surfaces with gilt transfers of birds and flowers all contributed to its presentation as a valuable addition to the family parlour. Even though most consumers could only afford the simplest and least decorated model, the 'essence' of the machine was that it was not a machine at all but a piece of furniture.[18]

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17 Strasser, *op. cit.*, 120-124.

18 This is discussed in greater detail in Chapter VI. See Diane M. Douglas, 'The Machine in the Parlour: A Dialectical Analysis of the Sewing Machine', *Journal of American Culture*, 5 (1),(1982), 20-29.

Whilst this scholarship has been taking place overseas, two studies have examined the relationship between women's history and domestic technology in Australia, Beverley Kingston's *My Wife, My Daughter and Poor Mary Ann* (1975) and Kerreen Reiger's *The Disenchantment of the Home* (1985). In her wide-ranging study of women and work in nineteenth century Australia, Kingston incorporates an overview of domestic technology. However, her approach is almost taxonomic and empiricist, with the history of domestic technology being viewed as a history of one improvement after the other.[19] Written a decade before the major American studies, it relied on traditional sources for technology history — advertisements and trade catalogues — which present that history only from the manufacturers' and retailers' perspectives.[20] By contrast, the work of Strasser and, more recently, Brewer has demonstrated both the value of 'deconstructing' such advertisements in order to reveal the concerns of the consumer, and the importance of looking to other sources such as diaries, letters and inventories to gather insight into the motivations behind the purchase of such new things.[21]

Kingston's failure to look more widely at source material means she concludes that as domestic servants became increasingly difficult to find and keep, the upper and middle-classes (and any other women who could afford them) gradually replaced domestic help with machines.[22] Essential to her argument is the assumption that middle-class (and some working-class) women had servants, that these servants were able to competently carry out the work necessary to run the house and that as a result their mistresses were able to lead lives of leisure. Whilst little work has been done on domestic service in Australia,[23] the work

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19 This is also the case with a number of studies produced in Britain and America such as Davidson, *op. cit.*, and Hardyment, *op. cit.*

20 Of course, taxonomic histories can provide authoritative histories of particular domestic technologies, as is the case with the Shire Albums series. These modest little books provide excellent overviews of everything from 'Domestic Bygones' to 'Wells and Water Supply'. See, for example, Jacqueline Fearn, *Domestic Bygones* (Aylesbury: Shire Publications, 1977).

21 Patricia Brewer, ' "We Have Got a Very Good Cooking Stove": Advertising, Design and Consumer Response to the Cookstove, 1815-1880', *Winterthur Portfolio*, 25(1),(1990), 35-54.

22 This is also the argument applied in a third work to appear in Australia on domestic technology, Judy Wajcman's *Feminism Confronts Technology*. However, this is not an historic study of the subject and includes only a brief overview of nineteenth century domestic technology. Wajcman, *op. cit.*, 85.

23 Paula Hamilton's extensive work on Australian domestic service has focussed on questions of migration and class. See Paula Hamilton, ' *"No Irish Need Apply": Aspects of the Employer-Employee Relationship, Australian Domestic Service, 1860-1900* (London: Australian Studies

of Patricia Branca and others on domestic service in Britain and the United States makes it abundantly clear that this was not the case. Middle-class women did not have the resources to meet the popular image of Victorian domestic life espoused by Mrs Beeton. Most middle-class households had only one general servant, who was typically very young, badly educated, from a poor family, with no experience of middle-class life. Branca points out that at the 1871 census in Britain, over half of domestic servants were under twenty and a third were aged between fifteen and nineteen.[24] Similarly, at the 1901 Census in New South Wales, a third of all female domestic servants were aged under twenty and almost one fifth of these were under fifteen. Furthermore, there was little evidence of households having a hierarchy of servants. A decade earlier, when for the first time female domestic servants were classified according to specialisation, seventy-three per cent came under the term 'Housemaid, kitchenmaid, general servant'.[25] There were only 1,523 cooks and 433 lady's maids,[26] suggesting that few households had anything more than basic help which would not even begin to provide the housewife with a life of leisure.

Even in Australia with its burgeoning population in the second half of the nineteenth century, there was no dramatic shortage of servants. In fact the numbers of domestic servants in New South Wales kept pace with population growth.[27] It was not the case therefore that households were buying new machines and gadgets to replace the servants they could no longer obtain. Indeed, oral evidence collected by Ruth Barton in Western

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Centre, 1985); Paula Hamilton, 'Domestic Dilemmas: Representations of Servants and Employers in the Popular Press' in Susan Magarey, Sue Rowley and Susan Sheridan (eds), *Debutante Nation: Feminism Contests the 1890s* (Sydney: Allen & Unwin, 1993), 71-90.

24 Patricia Branca, 'Image and Reality: The Myth of the Idle Victorian Woman', in Mary S. Hartmann and Lois Banner (eds), *Clio's Conciousness Raised: New Perspectives on the History of Women* (New York: Harper Colophon Books, 1974), 179-191. See also Patricia Branca, *Silent Sisterhood: Middle-Class Women in the Victorian Home* (London: Croom Helm, 1975). A similar argument is made in Daniel E. Sutherland, *Americans and their Servants: Domestic Service in the United States from 1800 to 1920* (Baton Rouge: Louisiana State University Press, 1991).

25 This was the first census in New South Wales to classify occupations according to age. From a total of 37,068 female domestic servants 1,726 were aged between five and fifteen and 10,942 between fifteen and twenty. T.A.Coghlan, *Results of a Census of New South Wales* (Sydney: Government Printer, 1904), 658, 659.

26 T.A. Coghlan, *Results of a Census of New South Wales* (Sydney: Government Printer, 1894), 592, 593.

27 As a proportion of the total female population, paid domestic servants rose from 7.27 per cent in 1871 to 8.18 per cent in 1901, Coghlan, *1901 Census, op. cit.*, 630.

Australia reveals that wealthy households purchased expensive household appliances whilst they still had servants.[28] The argument of Kingston and Wajcman — that when women were forced into their kitchens by servant shortages they discovered how unpleasant and ill-equipped they were and thus introduced labour-saving equipment — cannot be supported.[29] Rather, women had known all along that kitchens were ill-equipped and, during the course of the second half of the nineteenth century, made decisions about where to place their priorities in major equipment purchases.

Kerreen Reiger's *The Disenchantment of the Home* (1985), places developments in Australia within the context of movements taking place in industrial capitalist societies generally. Hers is not a history of housework or of technology, but of the impact that new ideas about science, efficiency and organisation had on the home. This provides a far more sophisticated analysis than Kingston's study, recognising the importance of home as sanctuary and as primarily woman's sphere in nineteenth century Australia.[30] However, in her consideration of the impact of technology on that sanctuary, Reiger assumes that advertisements for new appliances represented the reality and that, therefore, by the 1930s, the Australian home provided a material example of modernism.[31] Whilst it certainly was the case that new house construction between the wars increasingly saw the kitchen as the 'laboratory', reducing its size and removing its sociability, the fact remains that most twentieth century Australians lived in nineteenth century houses, and that as late as 1955 half the houses in Brisbane, Melbourne and Sydney were without hot running water in the kitchen, one in five still relied for cooking on a fuel stove, and a quarter were without a refrigerator.[32] Thus whilst, as Reiger points out, model kitchens of the 1930s left space for a refrigerator, it would be another forty years before that space was universally filled.[33]

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28 Ruth Barton, 'Household Technology in Western Australia, 1900-1950', *Oral History Association of Australia Journal*, No. 7 (1985), 108-129. See also Ruth Barton, 'Female Domestic Service in Western Australia, 1900-1950: A Comparative Statistical Study', *Social Sciences Forum*, 10 (1984), 14-31.

29 Kingston, *op. cit.*, 22 ff; Wajcman, *op. cit.*, 85.

30 Reiger, *op. cit.*, 37 ff.

31 *Ibid.*, 51-55.

32 *The Council for Advertising Research in Australia, Home Appliances 1955: Survey of Ownership* (Sydney: Council for Advertising Research in Australia, 1955), np. This was a survey of 4,511 homes made up of: 1,961 homes in Sydney, 1,569 in Melbourne and 981 in Brisbane. It would appear to be the only comprehensive published survey of domestic equipment and utilities in

The starting point for this thesis is the work of Strasser, Schwartz Cowan and Brewer. Like them, it draws on diaries, letters and other contemporary manuscript material as well as traditional source materials of advice manuals, cookbooks and advertisements. It has also looked at documentation on household contents, and auction and insolvency records have provided a particularly rich source. However, if all this thesis did was to write an Australian version of *Never Done* it would achieve little, since the arguments about the failure of domestic technology to impact on the amount of work done in the home are well established and irrefutable. Instead, rather than viewing technology from the manufacturer's perspective, *Romancing the Machine* focuses on the consumer.

Viewed from the perspective of the late twentieth century, when washing machines, cooking stoves, sewing machines, and irons are almost universal, it is easy to assume that a century ago their appearance on the market evoked a uniform and welcoming response. Yet, these were expensive technologies that had to compete for the limited budget of the Australian household. Colonial consumers, unused to spending large sums on domestic goods of any kind, had to change their attitudes to acceptable levels of debt, and to make choices as to which technologies would be the most beneficial, and to whom. As is evident from a 1926 survey of home equipment in the United States, benefits to individuals had to be weighed up against benefits to the family as a whole. Replying to detailed questions about their access to power and water, their ownership of labour-saving technologies and leisure goods, respondents wrote eloquently about the motivations behind their consumer choices. Mrs C.S. of Washington, with seven children, from a baby to a twelve year old, replied:

> If tomorrow some great fortune would grant me $300 would I cast away my tubs and washboards, with which I weekly grind out the family washing? Or equip my ancient kitchen with the loveliness of linoleum, gas range, kitchen cabinet? Or indulge in refrigerator, washer and electric iron?
>
> Alas, no, though my heart yearns for them. I would buy a piano .... I would buy good books, and some better furniture to make the home brighter for [the children].... For now is the time they need such things so badly, not a few years later, say after Mother has had her kitchen modernised .... If I wait for my plans for

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Australia which (unlike the United States) does not have a tradition of questionnaires and surveys of domestic consumers.

33 Reiger, *op. cit.*, 53.

> a handy home, but make a home after all, it may be that I shall never have those wonderful things, but I will have succeeded in my big job after all.[34]

As the survey results showed, Mrs C.S. was not alone in preferring culture to efficiency and family entertainment to labour-saving.[35] Behind the history of consumer response to such 'new things' lies the emergence of a culture of consumption and the insights that can be found through a study of the objects themselves.

2. The Social History of Technology

Traditionally, the history of technology is viewed as a continuum along which advances are intimately linked with new ideas, opportunities and markets. All too often, this becomes a history of one development after another, on an ever upward scale of progress and 'civilisation'. Numerous examples of this tendency exist in Australian history, one notable instance being G. J. R. Linge's *Industrial Awakening* (1979).[36] Even Beverley Kingston's *My Wife, My Daughter and Poor Mary Ann* (1975), and Robert Renew's more recent *Making It* (1993), suffer from the application of linear models of development, with an emphasis on commercial success.[37] As a result, scholars assume that the success of an object is sufficient explanation for its subsequent development, whereas it is exactly this success that needs explanation. In recent years American historians such as David Landes and David Hounshell have revealed the far more complex reality of technological innovation in which the history of the industrial revolution becomes one of stops and starts, successes and failures.[38] More important, such histories point to the changing

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34 'The Home Equipment Survey', *Women's Home Companion,* LIII(3),(1926), 34.

35 The middle class women from the General Federation of Women's Clubs who organised the survey were quite genuinely shocked by the results which revealed that America's reputation as a labour-saving country — in the home as much as in the factory — was completely unfounded. Mary Sherman, 'The Home Equipment Survey', *Women's Home Companion,* LIII(11),(1926), 15.

36 G.J.R. Linge, *Industrial Awakening: A Geography of Australian Manufacturing, 1788 to 1890* (Canberra: Australian National University Press, 1979).

37 Robert Renew, *Making It: Innovation and Success in Australia's Industries* (Sydney: Powerhouse Publishing, 1993).

38 David A. Hounshell, *From the American System to Mass Production, 1800-1930: The Development of Manufacturing Technology in the United States* (Baltimore: The Johns Hopkins University Press, 1984); David S. Landes, *The Unbound Prometheus: Technological*

relationship between manufacturer and consumer. Success in the market place was not simply a matter of superior production methods. Hounshell's examination of the sewing machine industry points to the 'old fashioned' production methods of Singer compared with those of rival companies Wheeler & Wilson and Willcox & Gibbs. Yet, the former produced and sold seven times more machines than Willcox & Gibbs, and twice as many as Wheeler & Wilson.[39] Innovation is therefore not simply about producing the superior product, but also about successfully marketing it.[40]

This complex relationship forms the focus of studies by Trevor Pinch and Wiebe Bijker, who have sought to replace a linear model with one reflecting the multi-directional nature of technological change. This sees change as a process of problems and solutions, with different groups requiring different solutions. The development process is one of 'negotiation' between consumers and manufacturers. It ends when 'closure' is reached, in other words, when the relevant social groups *see* the problem as being solved (whether or not it *is* solved is incidental). Pinch and Bijker cite the example of the air tyre for bicycles which, when first introduced, was regarded as a theoretical and practical monstrosity. But the ridicule that greeted its first appearance on the racing track, was soon silenced when it outpaced all its rivals.[41] In domestic technology, one example of closure would be the

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Change and Industrial Development in Western Europe from 1750 to the Present (Cambridge: Cambridge University Press, 1969).

39 David A. Hounshell, 'The System: Theory and Practice' in Otto Mayr and Robert C. Post (eds), *Yankee Enterprise: The Rise of the American System of Manufactures* (Washington, D.C.: Smithsonian Institution Press, 1981), 127-152.

40 Over the last decade extensive research has been undertaken in Australia about the innovation process. Conclusions generally point to the importance of marketing and promotion. The Boston Consulting Group went so far as to define innovation = invention + commercialisation. Pappas Carter Evans and Koop, The Boston Consulting Group, *Innovation in Australia* (Canberra: Government Printer, 1991), 4. See also Bureau of Industry Economics, *Beyond the Innovator: Spillovers from Australian Industrial R & D* (Canberra: Australian Government Publishing Service, 1994); Department of Industry, Science and Technology, *The Pace of Change: Technology Uptake and Enterprise Improvement* (Canberra: Australian Government Publishing Service, 1994). For innovation in an historical perspective see Hounshell, *From the American System, op. cit.*; Renew, *op. cit.*

41 They provide a detailed analysis of the development of the bicycle in Trevor Pinch and Wiebe Bijker, 'The Social Construction of Facts and Artefacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other', in Wiebe Bijker, Thomas Hughes and Trevor Pinch (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, Mass: MIT Press, 1987), 17-50. See also Wiebe Bijker, 'The Social Construction of Bakelite: Toward a Theory of Invention', *idem*, 159-190; Wiebe E. Bijker, *Of Bicycles, Bakelites and Bulbs: Towards a Theory of Sociotechnical Change* (Cambridge, Mass.: The MIT Press, 1995). See also the discussion of

electric oven. When first introduced, women accused it of 'steaming' food rather than roasting it (as was the case with a fuel range).[42] The fact that consumers now reserve their suspicions for the microwave and believe that electric ovens roast meat, is not because there has been any change in the technology, but rather because buyers and users have ceased to think of electric ovens in this way.[43]

Ruth Schwartz Cowan has proposed a model in which the consumer is embedded in a network of social relations that limits and controls technological choices. She attempts to reconstruct the elements that were important when a consumption decision was made, and emphasises the importance of looking at the domains of consumption, retailing and production. Social and economic factors in the production domain (such as manufacturing at some distance from town, high costs and expensive transport) are clearly major influences in determining acceptance by consumers (which, in the case of cast iron stoves, was directly related to cost).[44]

Recently this model has been extended by Langdon Winner and Steven Lubar who argue that there is a clear interrelationship between machines and culture: that machines both reflect the cultural and social influences of the day in their design and production, and that they, in turn, impact on society. Thus, as Winner points out, the height of the bridges on Long Island parkways was determined not by engineering requirements but by the desire of the builder, Robert Moses, to keep buses out, and thus prevent New York's poor travelling to Long Island beaches.[45] Equally, Lubar points to differences in locomotive design between

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approaches to the history of technology in Claude S. Fischer, *America Calling: A Social History of the Telephone to 1940* (Berkeley: University of California Press, 1992), 6-21.

42 Despite having had an electric oven since 1928, Mrs Calthorpe believed that it never properly roasted meat. For over fifty years, she continued to light the fuel stove every Sunday to cook the family's leg of lamb. Interview with her daughter, Mrs Waterhouse, 1989. See also Anne Bickford, *Calthorpe's House* (Canberra: Australian Government Publishing Service, 1987).

43 See Megan Hicks, Microwave Ovens (Unpublished MSc Thesis, University of New South Wales, 1987). More recently, the British sociologist, Cynthia Cockburn, has investigated the microwave as an example of the relations between technology and gender. Men who reluctantly cook in a conventional oven, cheerfully use a microwave because of its masculine 'gizmo' aesthetic. *The Times Higher Education Supplement*, 14 October 1994, 14, 15.

44 Ruth Schwartz Cowan, 'The Consumption Junction: A Proposal for Research Strategies in the Sociology of Technology', in Bijker *et al.*(eds), *op. cit.*, 261-280.

45 Langdon Winner, 'Do Artefacts Have Politics?', *Daedalus*, 109(1),(1980), 121-136 at 123, 124.

the English (solid and establishment), French (rational and extremely efficient) and American (practical, easy to repair and with little decoration).[46] An important aspect of any study of the social history of technology is an analysis of material culture. Before looking at the literature of material culture studies however, I will look at the equally important recent work in consumer culture.

3. Consumer Culture

In *The Birth of A Consumer Society* (1985), Neil McKendrick, John Brewer and J. H. Plumb have located the beginnings of the consumer revolution in eighteenth century England. They attribute it to a mix of ingredients: rising wages, fluid social structure, the spending bred by social emulation, and the compulsive power of fashion that was the result of social competition.[47] It would seem widely true that, as Nicholas Barbon wrote in *A Discourse upon Trade* in 1690:

> It is not necessity that causeth the Consumption. Nature may be Satisfied with little; but it is the wants of the Mind, Fashion and the desire of Novelties and Things Scarce that causeth Trade[48]

And, of course, it was not just the desire for novelty, the circumstances of the emergent industrial revolution meant that there was a ready supply of new goods. As a result, fashion and the desire for fashionable clothing, household goods and transportation equipment became driving forces behind new technology in eighteenth century England.[49] These desires were transported together with people and things to the American colonies and, at the end of the eighteenth century, to Australia. Although there is no major study of the

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46 Steven Lubar, 'Machine Politics: The Political Construction of Technological Artefacts', in Steven Lubar and W. David Kingery (eds), *History from Things: Essays on Material Culture* (Washington, D.C.: Smithsonian Institution Press, 1994), 197-214.

47 Neil McKendrick, John Brewer and J.H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth Century England* (Bloomington: Indiana University Press, 1985), 11.

48 *Ibid.*, 15.

49 See also Lorna Weatherill, *Consumer Behaviour and Material Culture in Britain, 1660-1760* (London: Routledge, 1988). For a cautionary note against viewing consumption entirely in terms of emulative behaviour see Colin Campbell, 'Understanding Traditional and Modern Patterns of Consumption in Eighteenth Century England: A Character-Action Approach', in John Brewer and Roy Porter (eds), *Consumption and the World of Goods* (London: Routledge, 1993), 40-57.

culture of consumption in Australia during the early years of European settlement, the work of James Broadbent and Margaret Maynard points to the enthusiasm that colonists showed for 'fashionable taste'.[50] In regard to fashionable dress, Maynard concludes that many of the same factors that were present in eighteenth century England were also present in the colony, notably a fluid social structure and an anxiety to establish and maintain 'respectability'.[51]

However, McKendrick and others tend to focus on the supply side, viewing the birth of the consumer society from the perspective of leading manufacturers such as Josiah Wedgwood. Since the publication of *Birth of a Consumer Society*, a multitude of works have explored the issue from the perspective of the consumer.[52] Among sociologists, Stewart Ewen has focussed upon advertising, and the consumer has been viewed as an innocent victim of mass market manipulation.[53] More recently, historians such as Jackson Lears and Christopher Lasch have disagreed with Ewen's interpretation, arguing that he has failed to grasp the complex interplay between power relations and changes in values.[54] Lears argues that the extraordinary growth in the culture of consumption in the years between 1880 and the inter-war period was due to a shift in belief away from the Protestant ethos of self-

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50 From an advertisement by M. Hayes, milliner, in 1803 quoted in Margaret Maynard, 'Civilian Clothing and Fabric Supplies: The Development of Fashionable Dressing in Sydney, 1790-1830', *Textile History*, 21(1),(1990), 87-100 at 89. See also James Broadbent, 'Building in the Colony' in James Broadbent and Joy Hughes (eds), *The Age of Macquarie* (Melbourne: Melbourne University Press and Historic Houses Trust of New South Wales, 1992), 157-171.

51 Margaret Maynard, *Fashioned From Penury: Dress As Cultural Practice in Colonial Australia* (Melbourne: Cambridge University Press, 1994), 41-58. See also Jane Elliott, 'Was There A Convict Dandy? Convict Consumer Interests in Sydney, 1788-1815', *Australian Historical Studies*, 26(104),(1995), 373-392.

52 For a critical analysis of the work of McKendrick *et al.*, see Jean Christopher Agnew, Coming Up for Air: Consumer Culture in Historical Perspective (Unpublished Paper Presented to the Eighty-Second Annual Meeting of the Organization of American Historians, St Louis, Missouri, 8 April 1989).

53 Stuart Ewen, *Captains of Consciousness: Advertising and the Social Roots of the Consumer Culture* (New York: McGraw-Hill, 1976).

54 T.J. Jackson Lears, 'From Salvation to Self-Realization: Advertising and the Therapeutic Roots of the Consumer Culture, 1880-1930' in Richard Wrightman Fox and T.J. Jackson Lears (eds), *The Culture of Consumption: Critical Essays in American History, 1880-1980* (New York: Pantheon Books, 1983), 1-38; T.J. Jackson Lears, 'Some Versions of Fantasy: Toward a Cultural History of American Advertising, 1880-1930', *Prospects*, 9 (1984), 349-405. See also Humphrey McQueen's discussion of Stuart Ewen in 'The Media and Advertising', *Bowyang* 1(1), 25-36.

denial, towards a therapeutic ethos stressing self-realization in this world. He quotes Raymond Williams:

> The skilled magicians, the masters of the masses, must be seen as ultimately involved in the general weakness which they not only exploit but are exploited by.... Advertising is then no longer merely a way of selling goods, it is a true part of the culture of a confused society.[55]

Essential to this approach is a deconstruction of contemporary advertising, the motivations of its creators and the public's response. This methodology provides an important model for my thesis, which seeks to understand why people responded so enthusiastically to the new goods on sale. Why, for example, was the Singer showroom in Sydney's Queen Victoria building elaborately decorated as a Moorish interior, a style that must have been surprising (if not shocking) to its customers, carrying with it all the sexual overtones of the east (abandon, irreligion, harems) and very far removed from any emphasis on practicality or efficiency. The answer lies in the atmosphere the manufacturers were trying to create, and department stores to consolidate.[56]

The history of consumer culture is framed by the history of department stores and retailing generally in England, Europe, the United States and Australia. The most significant change was the development of the department store, which had its origins in drapery stores or *magasins de nouveautés* of Paris. The innovations in this type of store were in the range of goods they stocked and in the new merchandising techniques they used, notably intensive advertising and fixed prices.[57] In 1852, the first department store opened in Paris, and others soon followed in London, New York, Chicago and, by the 1880s, Sydney and Melbourne. These stores presented increasingly elaborate 'dream worlds' to their

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55 Lears, 'From Salvation to Self-Realization', *ibid.*, 37, 38.

56 A Moorish interior also featured in the 1900 Exhibition in Paris in the Trocadero. Maurice Talmeyr described it thus, 'We are here, it seems, in the most legendary Spain, and this time there is indeed a well-done reproduction of great fidelity and delicacy. I feel, in these old walls, in this broken well, in these small columns which are crumbling, in a coat of arms that is obliterated, five centuries of mystery and sunshine .... Then I look, ... and I notice, above the door, in the patina of the stone, the tracing of Gothic letters ... I approach, and what is it I make out? Simply, *Menier Chocolate...*'. Quoted in Rosalind H. Williams, *Dream Worlds: Mass Consumption in Late Nineteenth-Century France* (Berkeley: University of California Press, 1982), 63.

57 For a discussion of department stores in Paris see Michael B. Miller, *The Bon Marché: Bourgeois Culture and the Department Store, 1869-1920* (Princeton: Princeton University Press, 1981).

customers, whose ideals of thrift and economy were soon replaced by feelings of indulgence, luxury and abandon.[58]

Sydney's eponymous Anthony Hordern's provides a good example of the evolution of the Australian department store. In 1825, Ann Hordern opened a staymaking establishment which, by the time her husband joined her in 1838, had become a general drapery business. Their son Anthony developed the Brickfield Hill shop in 1847 and opened a new shop in the Haymarket in 1854. By 1876 it had become a 'universal provider' and by the end of the century was described as:

> a realistic embodiment of fairyland. Here a hint of delicate audacity; there a shimmering seductiveness; ... and everywhere pervading an all-absorbing, bewildering, fascinating atmosphere of artistic conceptions that suddenly makes one feel old-fashioned, dissatisfied, and dowdy, and out-of-date - and - and - and that a new hat is an absolute necessity.[59]

In her history of Sydney's department stores, Gail Reekie argues that women were not, as Stuart Ewen and others have suggested, 'the inert victims of mass marketing strategies'. However, she still sees them as powerless players in the game of marketing, a game whose rules are closely tied to those governing sexual relationships between men and women. Shopping is therefore as much about seduction as it is about purchasing goods. Reekie distinguishes her argument from that of William Leach and others by asserting that the significant fact is not the shift from production to consumption, but rather from selling to marketing. Critical to an understanding of the latter, is an understanding of the changing sexual politics of the period. Whilst this thesis may apply to the twentieth century, there is clear evidence of the desire to consume well before the 'big stores' developed in the late nineteenth century. Nonetheless, Reekie's work reminds us that the majority of customers were women. Many witnesses to the 1920s enquiry into the cost of living indicated that it was normal practice for married women to be in charge of the family's budget.[60] If women

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58 The best evidence of this feeling of abandon from the normal social mores was shoplifting which, particularly among women, became an increasing problem as the century progressed. See Elaine S. Abelson, *When Ladies Go A-Thieving: Middle-Class Shoplifters in the Victorian Department Store* (New York: Oxford University Press, 1989).

59 *Australian,* 6 June 1907 quoted in Gail Reekie, Sydney's Big Stores 1880-1930: Gender and Mass Marketing (Unpublished PhD Dissertation, University of Sydney, 1987), 263.

60 *Ibid.*, 170. See also Gail Reekie, *Temptations: Sex, Selling and the Department Store* (Sydney: Allen & Unwin, 1993).

were buying these new things with money given to them to manage by their husbands, any history of domestic technology consumption must examine the motivations behind women's purchases for their family and for themselves.

Essential to the emergence of a culture of consumption is a new belief in the power of objects. As Neil Harris argues, the possession of fashionable things is not just a question of status, but has come to define who the consumer is, and almost to prove identity.[61] Objects which were once peripheral to daily life, providing merely the tools and comforts necessary to be housed and fed, have become critical to both individual self-definition and the broader culture of domesticity. This brings us to look closely at the objects themselves.

4. 'The People's Manuscript'[62]: Material Culture

Most writers on domestic technology pay surprisingly little regard to the history of the objects they study. To understand why the sewing machine was such a success one has to understand how it worked, the importance placed on its design and its function in the home. Of course, the importance of 'things' is not a revolutionary discovery. In 1948 Siegfried Giedion's *Mechanization Takes Command* argued for the significance of 'anonymous history':

> In their aggregate, the humble objects of which we shall speak have shaken our mode of living to its very roots. Modest things of daily life, they accumulate into forces acting upon whoever moves within the orbit of our civilisation. The slow shaping of daily life is of equal importance to the explosions of history; for, in the anonymous life, the particles accumulate into an explosive force. Tools and objects are outgrowths of fundamental attitudes to the world. These attitudes set the course followed by thought and action.[63]

Twenty years later, Fernand Braudel made material life or (as he called it 'material civilisation'), the basis for his study of the economic history of pre-industrial Europe. He

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61 Neil Harris, 'The Drama of Consumer Desire' in Mayr and Post (eds), *op. cit.*, 189-217.

62 James Deetz, *In Small Things Forgotten: The Archaeology of Early American Life* (New York: Anchor Press, 1977), 161.

63 Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (1948) (New York: W. W. Norton & Company, 1975), 3.

described it as a 'shadowy zone' but one that was extraordinarily rich, 'like a layer covering the earth', and one that could, as his title suggested, reveal the structures of everyday life.

The recent revival of American interest in the study of material culture was led in the 1970s by historical archaeologists, including Henry Glassie and James Deetz. The latter wrote in *Small Things Forgotten* (1977) that:

> Material culture is usually considered to be roughly synonymous with artefacts, the vast universe of objects used by mankind to cope with the physical world, to facilitate social intercourse and to benefit our state of mind. A somewhat broader definition of material culture is useful in emphasizing how profoundly our world is the product of our thoughts, as that sector of our physical environment that we modify through culturally determined behaviour.[64]

At the same time, historians were moving into researching a 'New History', concerned with exploring the histories of women, working people and minorities. This gave non-documentary sources a new importance, for these people left few written records of their own and little trace in official documents.[65] For such historians, material culture therefore offered what Robert Blair St. George called the 'ground floor of a new architecture of history'.[66]

The inevitable outcome of this interest has been considerable debate about definition.[67] In Britain and Australia, material culture is defined specifically as the study of:

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64 Deetz, *op. cit.*, 24.

65 For an overview of the 'New History' and material culture, see Edith Mayo, 'Focus on Material Culture', in Edith Mayo (ed.), *American Material Culture: The Shape of Things Around Us* (Bowling Green: Bowling Green State University Popular Press, 1984), 1-10.

66 Robert Blair St. George, 'Introduction', in Robert Blair St. George (ed.), *Material Life in America, 1600-1860* (Boston: Northeastern University Press, 1988), 3-16.

67 An overview of American scholarship on material culture theory is provided by Edith Mayo in the introduction to a special issue of the *Journal of American Culture*. Edith Mayo, 'Focus on Material Culture', *Journal of American Culture*, 3(4),(1980), 595-604. See also E. McLung Fleming, 'Artefact Study: A Proposed Model', *Winterthur Portfolio*, 9(1974), 153-161; Leland Ferguson (ed.), *Historical Archaeology and the Importance of Material Things: Papers of the Thematic Symposium, Eighth Annual Meeting of the Society for Historical Archaeology, Charleston, South Carolina, 1975* (Charleston: Society for Historical Archaeology, [1975]); Thomas Schlereth, *Material Culture Studies in America* (Nashville: American Association of State and Local History, 1982); Ian M. Quimby (ed.), *Material Culture and the Study of American Life* (New York: Norton & Co., 1978). For Britain see Susan Pearce, 'Thinking About Things: Approaches to the Study of Artefacts', *Museums Journal*, 82 (2),(1986), 198-201, 'Objects as Signs and Symbols', *Museums Journal*, 86 (3),(1986), 131-135, 'Objects in Structures', *Museums Journal*, 86 (4),(1987), 178-181.

> artefacts constructed by human beings through a combination of raw material and technology, which for practical purposes can be distinguished from fixed structures because they can be moved from place to place.[68]

In the United States, where historians and archaeologists have argued for the value of studying all artefacts — both moveable and immoveable — that humans have had some impact upon or interaction with, it is given a much broader definition. Thus the landscape, its marks of use and habitation, the human body, and even language can be viewed as material culture. A generally accepted American definition is that of James Deetz, who defines it as, 'that section of our physical environment that we modify through culturally determined behaviour'.[69] The study of material culture is not a study of the artefact for its own sake (and should be distinguished from the antiquarian interest in things themselves), but rather the study of things for what they reveal about the beliefs of the individuals who made, purchased or used the objects and thus the beliefs of the larger society to which these individuals belong.[70] It is therefore not a study of the taxonomy of eighteenth century teapots, but rather what changes in the design, materials, form and use of the teapot reveal about such things as ritual, gender relations and class.[71]

All exponents of material culture point to the importance of the cultural meanings implicit in the artefact. In 'thinking about things', it is recognised that objects can have multiple meanings, and that there may be a considerable difference between the public meanings of objects (as is evident in advertising imagery) and the personal or private meanings that objects have for their owners and users.[72] When Csikszentimitalyi and Rochberg-Halton interviewed 82 families in Chicago in 1977, questioning them about the significance of things in their lives, they elicited an enormous range of enthusiastic and often surprising responses. An eight year old boy, asked to identify objects 'special' to him, replied:

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68 Susan M. Pearce 'Introduction' in Susan M. Pearce (ed.), *Museum Studies in Material Culture* (London: Leicester University Press, 1989), 1-10 at 2.

69 Deetz, *op. cit.*, 24.

70 Jules David Prown, 'Mind in Matter: An Introduction to Material Culture Theory and Method' in St. George (ed.), *op. cit.*, 17-38.

71 See, for example, Rodris Roth, 'Tea-Drinking in Eighteenth Century America: Its Etiquette and Equipage', in *ibid.*, 439-462.

72 Kenneth Ames, 'Material Culture as Non Verbal Communication: A Historical Case Study', *Journal of American Culture,* 3 (4),(1980), 610-641.

> I have a bank from the First National. And when I look at it I think what it means. It means money for our cities and our country, it means tax for the government. My stuffed bunny reminds me of wildlife, all the rabbits, and dogs and cats. That toy animal over there [points to a plastic lion] reminds me of circuses and the way they train animals so that they don't get hurt. That's what I mean, all my special things make me feel like I'm part of the world.[73]

This reply serves to remind us of the essential 'inscrutability' of material culture. These comments were made only fifteen years ago; yet who reading them today would suspect that a toy bank could represent a nation's economy, or a stuffed rabbit, wildlife? How much more difficult it is then to understand the meanings behind artefacts in the nineteenth century. For while it is important to recognise the research potential of artefacts, it is equally important to realise their limitation. Artefacts do not speak for themselves, and there will always be much that we will neither know nor understand about the response of individuals to them.[74]

Yet this should not deter one from using material culture as a research source like any other. The work of Kenneth Ames on commonplace Victorian objects reminds us of the degree to which material culture can communicate a society's values. His analysis of hall furnishings reveals the importance middle-class Victorians placed on the ceremony of daily life —as evidenced by the ritual of cards — and the significance of fine points of dress — as witnessed by the hallstand with its provision for umbrellas, hats and coats:

> To all, the hallstand conveyed something of the spirit or mood of the household and was useful as well. It helped with details of grooming. It communicated non-verbally about who was or was not at home .... It ceremonialized the coming, the going, the entry and exit of the members of the household and their guests. And it served as a setting, a theatrical backdrop for the ritual of card leaving.[75]

Of course this does not mean that there is not a class bias in what material culture survives. As an examination of any museum collection will reveal, it is always the best clothes or the special dinner sets that are preserved. Yet, material culture can also be a powerful indicator of working-class values. Lizabeth Cohen's study of American working-class homes demonstrates how through the creation of a highly ornate Victorian parlour immigrant

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73 M. Csikszentimitalyi and E. Rochberg-Halton, *The Meaning of Things: Domestic Symbols and the Self* (Cambridge: Cambridge University Press, 1981), 135.

74 For a discussion of the inscrutability of objects see Daniel Miller, *Material Culture and Mass Consumption* (Oxford: Basil Blackwell, 1987).

75 Kenneth Ames, 'Meaning in Artefacts: Hall Furnishings in Victorian America', in Schlereth (ed.), *op. cit.*, 218.

workers managed to both preserve their cultural values and yet participate in the 'new' consumer culture of the United States.[76]

Material culture has a particular and obvious value in women's history, yet it is a source generally overlooked by writers in this area. It is only by examining artefacts themselves that we can come to some understanding of their significance in the home.[77] For example, in looking at an 1880s sewing machine, two things are immediately apparent: how complex a piece of machinery it is, and how far manufacturers went to soften its mechanical appearance. Equally, early cast iron stoves reveal the degree to which manufacturers tried to replicate some of the material conditions of the open fire or grate: preserving the 'view' of the fire and keeping the stove and hot plates close to the ground.[78] The very survival of some nineteenth century gadgets, particularly elaborate apple peelers and cherry stoners, may indicate not their use but their impracticality, and hence their preservation through 'non-use'.

III The Analysis

Romancing the Machine applies the models developed in recent work on the history of technology to domestic technology and explores the methodologies of material culture analysis established by Kenneth Ames and Patricia Brewer. Purely technical questions — such as the degree to which machines did or did not save time — are less important than those that relate to the development of the machine itself. The relationship between the manufacturer and consumer becomes particularly important in analysing how the essentially conservative culture of domesticity was overcome and householders persuaded

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76 Lizabeth A. Cohen, 'Embellishing a Life of Labour: An Interpretation of the Material Culture of American Working-Class Homes, 1885-1915', *Journal of American Culture*, 3(4) (1980), 753-775.

77 For a detailed bibliography on women's history and material culture see Mary Johnson, 'Women and the Material Universe: A Bibliographic Essay', in Mayo (ed.), *op. cit.*, 218-255.

78 The low height of cooking stoves was a practical necessity since the weight of cast-iron cooking utensils made it impossible to lift them to any height.

to spend money on new appliances. Since the focus throughout is on what people had in their homes — rather than simply what was available — material culture analysis has an especial relevance. This thesis therefore combines the evidence of trade catalogues, domestic guides and advertising with documents that inventory contents of nineteenth century Australian homes, specifically auction notices and insolvent estate records. Though neither provides the precise detail afforded in eighteenth century British and American deceased estate records,[79] both indicate at least what was regarded as important in furnishing and equipping the home and provide some insight into levels of ownership of new technologies.

Chapter 1 sets the scene, providing an overview of the material culture of Australian domestic life on the eve of the goldrush. It draws on contemporary sources and descriptions to examine attitudes to the home which, over the previous half century, had become increasingly important, not simply as a practical source of food and comfort, but as the moral and spiritual heart of society. Although in both Britain and America this came in response to the pressures of industrialisation, it was transferred in its entirety to what was then a largely non-industrial Australia. The fact that a high proportion of the population were first generation migrants gave the home an even greater importance, as settlers tried to re-create the middle-class domestic environment that they had, or had aspired to, at 'Home'. Thus, although Australians gained a reputation for their openness to innovation and to new technology in the paid workplace, the same could not be said of that unpaid workplace, the home.

The conservative force of the domestic ideal is evident in the histories of particular domestic technologies traced in the following five chapters. Applying the models of Wiebe Bijker, Trevor Pinch, and Ruth Schwartz Cowan, I examine the factors that determined the success or otherwise of technology in the nineteenth century Australian home. A primary concern is with the complex interrelationships between manufacturers, retailers and

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79 For an indication of the richness of these sources, see Weatherill, *op. cit.* and Shammas, *op. cit.*

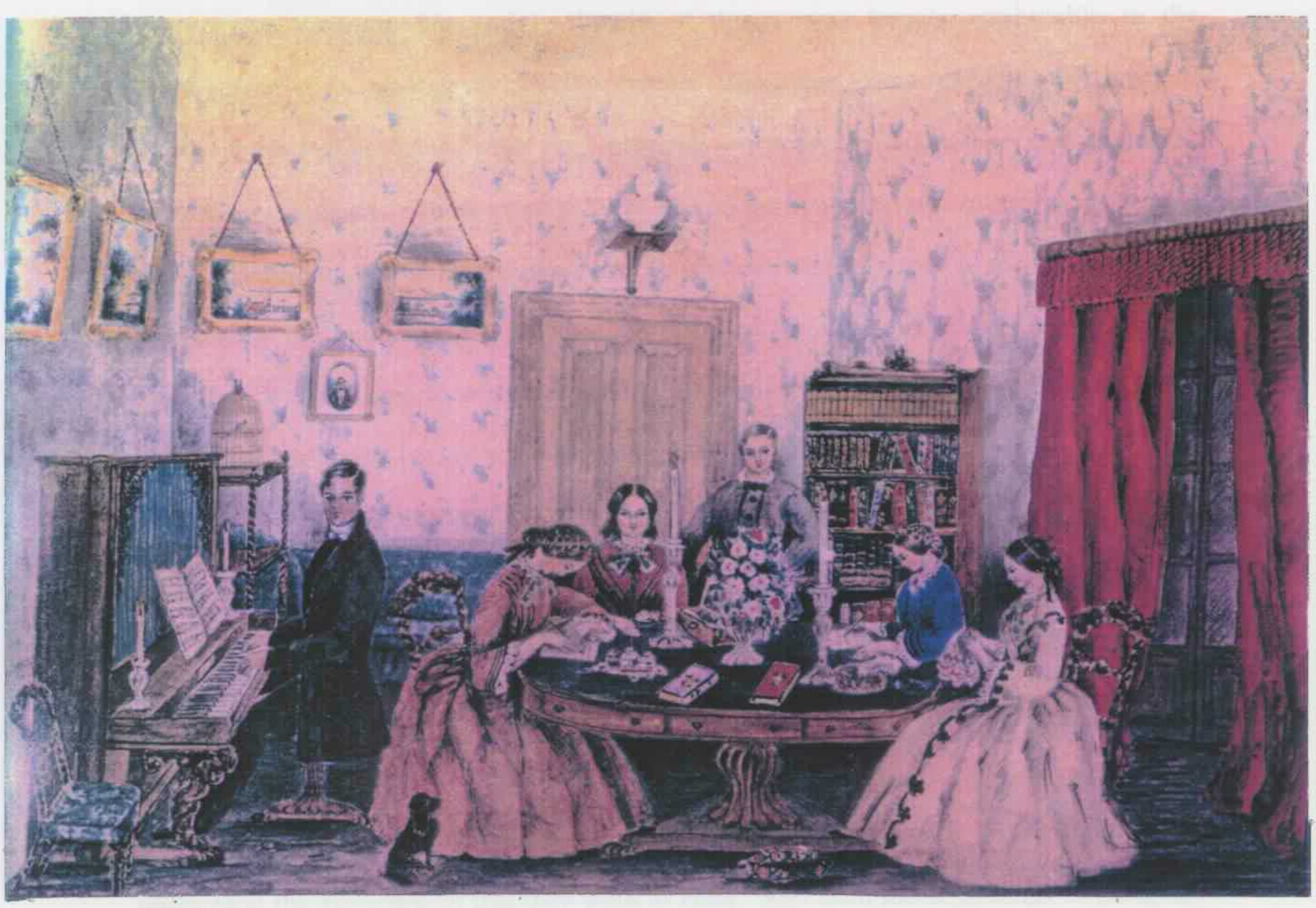
consumers, and the influence this had on the design, promotion and sale of machines. Although almost all of those discussed were manufactured in Britain, America or Western Europe, judging by advertisements, catalogues and testimonials, the response of consumers in Australia was remarkably similar to their international counterparts. Looking at a range of domestic work practices, it is apparent that the criteria used to judge a technology's success in the commercial world — time and labour-saving — could not be applied even to the most laborious practices in the domestic environment. It is quite apparent that households were not looking for savings in time and effort. Instead, when it came to the purchase of new equipment for the home, what the Australian housewife was looking for was the machine that would actively contribute to the emotional and spiritual life of the home as much as to the practical.

This thesis is not intended to be a comprehensive history of domestic technology in Australia. The technologies chosen were selected to represent the main areas of domestic work: food preparation and cooking, washing and ironing, clothing and household linen production. Child-care has not been included since the machine is yet to be invented that will quieten a grizzly baby or get up in the middle of the night to feed it. Furthermore, as nineteenth century domestic guides reveal, it was not an issue of concern to the Victorian housewife in the same way that cooking, cleaning and the manufacture of clothes were. Most Australian guides will have several chapters given over to each of these areas, and practically nothing on the care and raising of children.

Romancing the Machine concludes with an examination of the Australian middle-class home on the eve of the First World War. Where once it had been a site of simplicity, of basic furnishings and no major pieces of technology, now it had become a site of far higher expectations. Even the simplest homes had specialised room use, carpets on the floor and hangings on the windows, matching suites of furniture, and a new emphasis on softness and comfort. They might also have a sewing machine in the parlour, a cast iron stove in the kitchen or a washing machine by the back door. But the successful entry of

these machines into the 'Austral Eden' was dependant upon their capacity to be romanced by the home, to embrace the domestic aesthetic and thus contribute to the enchantment of the domestic circle.

Plate 1



An Evening Gathering at Yarra Cottage, Port Stephens, 1857, mixed media drawing by Maria Caroline Brownrigg. Private collection.

A family gathered around a central table, at rest yet gainfully occupied in the cultivated pursuits of middle class life — reading, writing, embroidery and, most importantly, playing the piano — was a powerful symbol of nineteenth century domestic life. Maria Brownrigg's drawing demonstrates the strength of her own family's claim to middle class respectability which, despite her father's recent dismissal as General Superintenent of the Australian Agricultural Company, survives in their 'genteel' accomplishments and possessions.

I

The Enchantment of the Domestic Circle: The Australian Home in the 1850s

Introduction

In Britain, America and Australia, the growth in manufactures and retailing that came to characterise Victorian life and its 'world of things' was largely attributable to the development of an aspiring middle-class culture. The home increasingly provided markets for the new technologies, while its occupants became the targets for manufacturers' advertising campaigns. Those markets were influenced by increasing consumer wealth, but also by increasing consumer resistance. Both because, and in spite of, social and cultural changes, by the mid-nineteenth century the image of the family gathered around its 'own snug fireside' had come to represent the highest achievement of the Victorian period, and its spiritual and moral backbone (Plate 2). As a Victorian goldrush poet proclaimed:

> Mid the world's contention, crowd and noise,
> Seek home's solicitude and peaceful joys,
> And find reward of toil, repose from strife,
> In fireside pleasures of domestic life,
> Where woman in her fairest phase we view,
> So good, so gentle, truthful, fond and true.[1]

To this 'charmed circle' new technologies offered both an opportunity and a challenge: an opportunity to make work lighter and easier, and a challenge to preserve the sanctity of the domestic ideal. To determine how colonial households responded, it is necessary first to understand the environment that they were to enter. And from the beginnings of European settlement to the eve of the goldrushes, the material culture of Australian domestic life was shaped by the pervasive influence of 'civilized behaviour', modified by memories of the home left behind and expectations of a future yet to come.

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1 From *The Australian Home Companion and Illustrated Weekly Magazine* (1852) quoted in David Goodman, *Gold Seeking: Victoria and California in the 1850s* (Sydney: Allen & Unwin, 1994), 155, 156.

1 Principal Inhabitants and the Middling Classes

The very importance of what we may call the aspiring 'middling classes' in nineteenth century Europe and its settler colonies, has made them difficult to define. In *Family Fortunes*, Leonore Davidoff and Catherine Hall argue that the single greatest distinction between the landed aristocracy and the urban middle-class was the latter's need to earn a living. Whereas property ownership guaranteed the aristocracy an income, the middle-classes had to find ways of generating money. Yet amongst this class of people there was enormous variation, from the country schoolteacher to the 'respectable' merchant. It is therefore notoriously difficult to pinpoint the boundaries of middle-class membership. Even the basic indicator of income is unreliable, with historians using incomes ranging from £100 to £1000 a year.[2] Furthermore there was a distinct line within the middle-class, between the 'gentry' — landowners, professional men and merchants (but not tradesmen or shopkeepers) — and the rest.[3] In colonial Australia, a further 'line' was drawn between those who were 'free from convict stain', and those who preferred to forget their origins.

In *Class Structure in Australian History*, Connell and Irving argue that in the first decades of settlement, New South Wales reflected an eighteenth century structure, with 'gentry' on the one hand (represented by officers, military and 'principal inhabitants') and 'peasants' (convicts, and later, emancipists) on the other. As late as 1821, some eighty men owned sixty per cent of alienated land in New South Wales. However, over the next two decades, a burgeoning economy, combined with increasing numbers of free settlers, led to the emergence of a distinct bourgeois class, and with it a distinctive culture.[4]

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2 Leonore Davidoff and Catherine Hall, *Family Fortunes: Men and Women of the English Middle Class, 1780-1850* (London: Hutchinson, 1987), 18-28.

3 See Penny Russell's discussion of the 'gentry' in Penny Russell, *'A Wish of Distinction': Colonial Gentility and Femininity* (Melbourne: Melbourne University Press, 1994), 1-11. Unfortunately Russell does not provide any income analysis for the gentry nor give any idea of either what proportion of colonial society is being referred to or the changes over time in that proportion.

4 R.W. Connell and T.H. Irving, *Class Structure in Australian History: Documents, Narrative and Argument* (Melbourne: Longman Chesire, 1982), 50-61.

A number of indicators reveal the strength of this culture by the 1840s. Despite the hardships, isolation, and often fragile economy, the fashions of London and Paris were carefully copied,[5] and etiquette observed — *Hints on Etiquette and the Usages of Society, with a Glance at Bad Habits*, was published in Hobart in 1838. That year also saw the formation of the Melbourne Club, the Australian Club in Sydney and the South Australian Club in Adelaide, all with controls restricting the (exclusively male) membership to gentlemen, professional men, squatters and well educated merchants and entrepreneurs.[6] Clubs, political parties and professional organisations emphasised the value of work (rather than birthright) and financial success. Indeed, colonies like New South Wales provided the ideal environment for exercising such values, a factor recognised by more affluent emigrants like James Henty. Writing to his brother in 1828 regarding their impending migration, he argued that they would have:

> an opportunity of doing as well and perhaps considerably better in New South Wales, under British Dominion and a fine climate .... immediately we get there we shall be placed in the first Rank in Society, a circumstance which must not be overlooked as it will tend most materially to our comfort and future advantage.[7]

But it was not sufficient simply to be in the 'first rank'. One also needed material proof of being there, and by the 1840s, this had come to mean a comfortable home. The greatest compliment a visitor could pay to a colonial household was to remark on 'how like England' their establishment seemed to be.[8]

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5 Jane Elliott, 'Was There A Convict Dandy? Convict Consumer Interests in Sydney, 1788-1815', *Australian Historical Studies*, 26 (104),(1995), 373-392.

6 Sydney's Chamber of Commerce was first established in 1826 and the Exchange was chartered in 1837. Connell and Irving, *op. cit.*, 54. Catherine Hall identifies the development of professional organisations, political groups, private clubs and other exclusively male organisations as providing clear evidence of middle-class formation. Catherine Hall, *White, Male and Middle Class: Explorations in Feminism and History* (Cambridge: Polity Press, 1992), 263 ff. Stuart Blumin makes the same observation of American middle-class formation. Stuart Blumin, 'The Hypothesis of Middle-Class Formation in Nineteenth-Century America: A Critique of Some Proposals', *American Historical Review*, 90(2),(1985), 299-338.

7 Hall, *ibid.*, 18.

8 Indeed European visitors were often astonished at the success of colonists in creating a European home 'so far removed from Europe, in the interior of a country where communications are so difficult'. The French artist, Eugene Delessert, was particularly impressed by the drawing room at Camden Park which he visited in 1845, 'with the latest albums from London and Paris, an excellent piano ... a selection of ornaments arranged with taste...'. Quoted in Jessie Serle, 'Interiors and Decoration', in Robert Irving (ed.), *The History and Design of the Australian House* (Melbourne: Oxford University Press, 1985), 213-220 at 220.

2. 'Industrious Housewifery'

In 1850, the *Illustrated London News* eulogized an emigrant's hut at Port Phillip as the model home:

> Indeed with its verandah, supported by painted green pillars, its cedar doors and window frames, its neat enclosure, and, in many cases, its battened and gaily papered interior, the slab hut is a picturesque object, bearing about it many pleasing associations with the still fondly remembered mother country, her comforts and her elegances.[9]

Such 'pleasing associations', particularly in relation to material comforts, were comparatively recent even in England. The work of Carol Shammas on the American colonies and Lorna Weatherill on England has shown that, rather than being a place of comfort, the seventeenth and eighteenth century home offered little in the way of either privacy or sociability. In both town and country, households of the middling ranks had between three and six rooms whose functions were rarely specialised, a fact aided by their sparse furnishings. Curtains, carpets and upholstery were rare. Tables were laid simply with only essential china, earthenware and cutlery. Meals were consumed at the workplace or hastily at home, and once 'tea' was over, the family would retire to bed, often the most comfortable place in the house.[10]

However, during the second half of the eighteenth century, householders in both urban and rural communities began to place a special importance upon the home, and upon expenditure within it. Increasingly, the home became a stage on which a family could act out its accomplishments against a suitably refined backdrop. As such, greater emphasis was placed on comfort and on the furnishings and fittings thought necessary to achieve it. By the late eighteenth century, even English working people were beginning to own knives and

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9 *Illustrated London News*, 14 December 1850, 468.

10 Traditionally bed linen was brought into the home by the new wife, forming part of her settlement or dowry and the bedlinen and bedding were often among the most valuable items in probate inventories. In her study of probate inventories in Oxfordshire (1550-1591), central and southern Worcestershire (1669-70) and in Massachusetts (1774) Carol Shammas found that between twenty and twenty-five per cent of a household's total investment in consumer goods went into bedding. Carol Shammas, 'The Domestic Environment in Early Modern England and America', *Journal of Social History*, 14(1), (1980), 3-24 at 8. See also Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York: Vintage Books, 1993), 109.

forks, glassware and tea equipment, and for those of the middle-class, these things had become necessities. [11]

Of course, the necessary ingredient for such a home was a dependant female middle-class, whose primary care and concern was the domestic environment. Thus at the same time that the domestic environment was being venerated, a new ideal of womanhood was being developed to ensure it could be sustained. Davidoff and Hall have traced the resulting ideal of separate spheres to the late eighteenth century Evangelical movement in England. Women had ease, purity and simplicity, while men had grandeur, dignity and force. 'Angels in the house', women were to remain at home, protecting and nurturing the spiritual core of family life, while men went out to do battle in the worlds of commerce, industry and agriculture. In *Practical Christianity,* William Wilberforce described the perfect Victorian family:

> When the husband should return to his family, worn and harassed by worldly care or professional labours, the wife, habitually preserving a warmer and more unimpaired spirit of devotion, than is perhaps consistent with being immersed in the bustle of life, might revive his languid piety.[12]

The paradox of this ideal was that women were to be subservient within a household, while remaining its spiritual and moral guardians.[13]

By 1788, this ideal was sufficiently implicit to be transferred seamlessly to Port Jackson. The concept of women's separate spheres was preserved from the earliest years of settlement in New South Wales. Convict men were put to clear the bush, cut timber, dig

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11 Shammas, *op. cit.*, 13. For a discussion of changes in eating habits and the material culture and ritual of eating see Barbara G. Carson, *Ambitious Appetites: Dining, Behaviour and Patterns of Consumption in Federal Washington* (Washington, D.C.: The American Institute of Architects Press, 1990); Philip D. Zimmerman, *Seeing Things Differently* (Wilmington: Henry Du Pont Winterthur Museum, 1992).

12 Catherine Hall, 'The Early Formation of Victorian Domestic Ideology' in Diana Leonard Barker and Sheila Allen (eds), *Dependence and Exploitation in Work and Marriage* (London: Longmann, 1976), 121-151. See also Leonore Davidoff and Catherine Hall, *op. cit.*; and Jeanne M. Peterson, 'No Angels in the House: The Victorian Myth and the Paget Women', *American Historical Review,* 89 (3),(1984), 677-708. For a discussion of the domestic ideal in America see Barbara Welter, 'The Cult of True Womanhood, 1820-1860', *American Quarterly,* XVIII(1),(1966), 151-174; and Glenna Matthews, *'Just a Housewife': The Rise & Fall of Domesticity in America* (New York: Oxford University Press, 1989).

13 Davidoff and Hall point out that a favourite bible passage in the early nineteenth century was St. Paul's *Epistle to the Colossions,* 'Wives submit yourselves unto your own husbands, as it is fit in the Lord. Husbands, love your wives and be not bitter against them, children obey your parents in all things...'. *Ibid.*, 108.

gardens and build shelters, whilst convict women were given lighter work, such as gathering shells for mortar. The convict Margaret Catchpole wrote home in 1801 that her life was no more difficult than in England, as 'we are free of all hard work'.[14] For reasons of social control, if not morality, convicts were also given strong inducements to marry. Shortly after taking up his position as Governor of New South Wales, Macquarie issued a proclamation declaring that those settlers and convicts who 'cohabited' rather than married could not expect government assistance or support:

> He feels himself called upon in particular to reprobate and check, as far as lied in his Power, the scandalous and pernicious Custom so generally and shamelessly adopted throughout this Territory, of Persons of different Sexes COHABITING and living together, unsanctioned by the legal ties of MATRIMONY; .... such Practices are a Scandal to RELIGION, To DECENCY, and to all GOOD GOVERNMENT.[15]

Whilst marriage was an efficient means of controlling convicts — and ensuring stability — Macquarie's proclamation also reveals a close relationship between emerging ideals about the family and the structure of colonial society. Macquarie was not simply exercising a bureaucratic desire to 'tidy things up', but expressing a belief that a married woman's influence within the home would encourage morality, spirituality and the future prosperity of the colony.[16]

Two surviving 'images' of colonial women demonstrate the manifestation of this ideal and its importance. The first, a memorial to Fanny Harrington (née Macleay) erected in St. James Church following her premature death in 1836, was an eloquent evocation of the qualities valued in a wife:

> Endowed with superior talents. Eminent in graceful accomplishments. She by deliberate preference partook sparingly of the pursuits and amusements and with self-denying unobtrusive goodness, devoted her time and faculties to instruct the poor and fatherless in the principles of the doctrine of Christ.[17]

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14 Quoted in Patricia Grimshaw, Marilyn Lake, Ann McGrath and Marian Quartly, *Creating a Nation* (Melbourne: McPhee Gribble Publishers, 1994), 50. Margaret Catchpole (1762-1819) was sentenced to death for stealing a horse, a sentence that was commuted to transportation, and she arrived in the colony in 1801. See Dale Spender (ed.), *The Penguin Anthology of Australian Women's Writing* (Ringwood: Penguin Books, 1988), 1.

15 *Sydney Gazette*, 24 February 1810, 1.

16 Alan Atkinson cites the example of the convict bushranger Johanna Lawson who in 1828 was urged to marry 'as a means of preventing future crimes'. Alan Atkinson, 'Convicts and Courtship' in Patricia Grimshaw, Chris McConville and Ellen McEwen (eds), *Families in Colonial Australia* (Sydney: George Allen & Unwin, 1985), 19-31 at 21.

17 Quoted in Beverley Earnshaw and Joy Hughes (eds), *Fanny to William: The Letters of Frances Leonora Macleay, 1812-1836* (Sydney: Historic Houses Trust of New South Wales and Macleay Museum, University of Sydney, 1993), 182.

The second was a presentation portrait by the English painter John Linell, of Eliza Darling, the young wife of the Governor of New South Wales. Fashionably dressed, and seated with a child on either side and a careless scattering of toys around her, she provided the perfect image of serene motherhood (Plate 3).[18] But whereas Fanny Macleay at best paid polite attention to the ideal, all the while resenting the reality,[19] Eliza Darling took pride in her charitable works, which she pursued with great enthusiasm, despite an almost constant state of pregnancy.[20] Nor was she averse to handing out advice to other women on how to achieve this ideal. In 1829, she wrote to her brother's wife:

> It is a woman's duty, in every station, however wealthy or however exalted to 'look well to the ways of her household' and 'see that her maidens eat not the bread of idleness'.[21]

If Eliza Darling's portrait idealised Victorian womanhood, her surroundings with their rich draperies, patterned carpet and heavily embroidered tablecloth provided no less an ideal of the home, a home to be safeguarded against the incursions of machinery.

3. 'The Merry Family Circle': Making a Home

To colonists, the importance of their material environment could not be overstated. Together with clothing, it provided the surest indicator of social status and both men and women took a keen interest in the design and furnishings of their homes. Indeed, a poor home could become a matter of great concern, even to high government officials. Ellis Bent's correspondence with his mother in the early 1800s reveals that despite the

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18 For a discussion of the significance of portraiture in establishing and maintaining the family dynasty see Richard Neville, *Faces of Australia: Image, Reality and the Portrait* (Sydney: State Library of New South Wales, 1992). See also Julian Faigan (ed.), *Uncommon Australians: Towards an Australian Portrait Gallery* (Sydney: Art Exhibitions Australia Ltd, 1992), 40, 41.

19 Writing to her brother in 1826, Fanny complained bitterly about her appointment to the Board of the Female School of Industry, which formed her major charitable work for the next decade. 'Mrs Darling has instituted a School of Industry for young girls and sorely against my good will has appointed me Treasurer & Secretary. I am very angry — Papa well pleased'. Fanny Macleay to William Macleay, 21 April 1826 in Earnshaw and Hughes (eds), *op. cit.*, 53.

20 See Brian Fletcher, 'Elizabeth Darling: Colonial Benefactress and Governor's Lady', *Royal Australian Historical Society,* 67 (4),(1982), 297-325. Opinions as to her character varied, Fanny Macleay described her as, 'Accomplished and pretty, but one of those who court popularity and has her hand ready and a kind speech or pretty compliment at command for everyone, even for those whom she owns she dislikes'. Fanny Macleay to William Macleay, 5 March 1826 in Earnshaw and Hughes (eds), *op. cit.*, 51.

21 Quoted in Fletcher, *op. cit.*, 306.

(undoubtedly anticipated) rigours of living in a new colony, as a gentleman he had certain standards that could not be ignored, even temporarily. Newly appointed Judge Advocate for New South Wales, Bent spurned the house offered to him, describing it as 'a Perfect Pigstye'. The entrance door was 'mean, narrow & shabby', the windows 'extremely insignificant, & by no means proportioned to the height of the rooms'. A single storey cottage, it had been furnished by the wife of his predecessor, Mrs Atkins:

> who was not a women of any taste I am sure. For the windows and doors were all bordered with low and vulgar caricatures; & the Doors painted with alternate colours of Blue and White.[22]

In reality, the house was merely 'old fashioned'. However, Bent's complaints indicate the length that colonial expectations had moved away from seeing a house as providing shelter, to affording a stage for the 'social performance' of its occupants.

The same concern is evident in the correspondence of the squatter, Helenus Scott. In 1824, he wrote to his sister, describing the first house built on the farm he owned with his brother Robert:

> We have now got a very comfortable hut or cottage until we have the time to build a better one, it is 20 feet long and 12 broad, we are something like the cobbler who lived in a little stall, such served him for 'de Kitchen, for de parlour, & for de every ting else' only ours serves for everything except the kitchen.

The following year, he reported with some pride:

> I shall soon be able to write to you more like a gentleman when our neat little cottage is finished, we shall get into it in about three weeks — it contains two rooms & three small verandah rooms and one closet .... It is so neatly finished that I think we shall live in it for some years unless a Mrs S (Mrs R or H) should interfere and say she must have a better house — the two centre rooms are a sitting & a bedroom.[23]

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22 Ellis Bent to his mother 4 March 1810. Quoted in James Broadbent, Aspects of Domestic Architecture in New South Wales, 1788-1843 (Unpublished PhD Dissertation, Australian National University, 1985), 63. See also the discussion of Ellis Bent's home in Terence Lane & Jessie Serle, *Australians at Home: A Documentary History of Australian Domestic Interiors from 1788 to 1914* (Melbourne: Oxford University Press, 1990), 5, 6.

23 Quoted in Broadbent, *op. cit.*, 412. The design of this house resembled that of the one roomed frame or log houses common in America in the seventeenth century. Bushman points out that their proportions were surprisingly uniform, 18 x 20 feet inside with small window openings 2 x 2 feet. Bushman, *op. cit.*, 104.

It is significant that Scott thought it acceptable to live in one room, like working people, for a short time, but that the minimum necessary for a 'genteel' life was a sitting room separate from bed chambers.[24]

The anxieties of Scott and Bent clearly indicate the link a nineteenth century householder saw between material surroundings and social status. James Broadbent argues that it was only with the rise of an emancipist middle-class, and the resultant tensions between them and the free settlers, that colonial domestic architecture developed any sophistication. Military officers had an acknowledged status and were provided with barrack accommodation. If they were planning to settle, their surplus money went into acquiring land; and if they intended returning to England, they saved for retirement. It was only when they were succeeded by men 'of less gentility but equal acquisitiveness' that material proof of status became important. The house became the most forthright statement of a person's cultural condition, and therefore of his status in society.[25] Indeed material possessions had an added importance in New South Wales, since the very ambiguities of a migrant culture — where family origins were relatively easy to disguise beneath the mantle of middle-class propriety — undoubtedly encouraged expenditure on items of conspicuous consumption. As Admiral John Hunter observed in 1802, 'Some of the very dregs of those who have been sent here convicts are now in possession of their horses and chaise, servants and other symbols of wealth.'[26]

The room on which a gentleman would be judged was his drawing room or parlour. Free both from beds and anything relative to work, this room was dedicated to entertainment and the formal presentation of the family's best things. The recognition of their need for such a room underlies Bent's and Scott's anxieties. Its importance was paramount since it

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24 Helenus and Robert Scott planned to build on an even grander scale but these plans were destroyed by the crash of the 1840s when along with many others, the brothers went bankrupt Broadbent, *op. cit.*, 409-411.

25 Bushman, *op. cit.*, 239.

26 Admiral John Hunter, *Remarks on the Causes of the Colonial Expense* (1802) quoted in Broadbent, *op. cit.*, 52. See also Jane Elliott's study of convict spending patterns which reveals that both convict men and women spent a substantial proportion of their disposable income on fashionable dress. Elliott, *op. cit.*, 373-392.

provided a space for the family to be 'on show' or, as Katherine Grier has described it, a theatrical setting for the family to play out its public life.[27] Thus Lady Jane Franklin's description of Government House in 1817 focussed first on the public rooms, and only second on the actual suitability of the house for a family, 'The two Public Rooms for the Reception of Company are tolerably good and Spacious, but there are only two Bed Rooms.'[28]

Contemporary sources reveal that in colonial New South Wales, despite high building costs and limited house size, substantial efforts were made to create and furnish one such room that was variously called the sitting room, drawing room or parlour.[29] Indeed, uncertainty as to what the room was called indicates the term's comparatively recent emergence. William Tanner used parlour and sitting room interchangeably when describing his home to his mother in 1831.[30] Over the next half century, the name and function of the room became increasingly well defined and, by 1890 the *Century Dictionary* was defining it as 'a room in a private house set apart for the conversational entertainment of guests.'[31]

Though the name may still have been in flux, the material culture of the 'public room' was well defined. Above all, it was characterised by an aesthetic of 'smoothness', of polished surfaces, soft furnishings and gently flowing curves, 'A quality so essential to beauty, that I do not now recollect any thing beautiful that is not smooth.'[32] A further indication of its

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27 Katherine C. Grier, *Culture & Comfort: People, Parlors, and Upholstery, 1850-1930* (Amherst: University of Massachusetts Press, 1988), 64. For a discussion of the clear distinction that emerged at this time between 'public' and 'private' space in the home see Clifford E. Clark, 'Domestic Architecture as an Index to Social History: The Romantic Revival and the Cult of Domesticity in America, 1840-1870', *Journal of Interdisciplinary History*, VII (1),(1976), 33-56.

28 Broadbent, *op. cit.*, 131.

29 Parlour comes from the French *parleur*, meaning a room used for conversation. See Sally McMurry, *Families and Farmhouses in Nineteenth-Century America: Vernacular Design and Social Change* (New York: Oxford University Press, 1988), 135. A sitting room could also mean a room that saw daily casual use by the family and was sometimes called a 'back parlour'. In houses with less space, this function was often performed by the dining room or kitchen.

30 William Tanner to his mother, 10 October 1831 in Pamela Statham (ed.), *The Tanner Letters: A Pioneer Saga of Swan River & Tasmania, 1831-1845* (Perth: University of Western Australia Press, 1981), 8.

31 Quoted in Grier, *op. cit.*, 64.

32 Edmund Burke, *A Philosophical Enquiry into the Origin of Our Ideas of the Sublime and Beautiful* quoted in Bushman, *op. cit.*, 72. Bushman points out that the concept of smoothness went across all circumstances: the middle-classes were distinguished from working people by the smooth feel of the fabric that made up their clothes; their gardens were defined by the

importance was the considerable self-satisfaction the possession of such a room produced among its owners. Thus, Bent wrote to his mother reporting on his new sitting and dining rooms, '[surely] the neatest in the colony, certainly the cleanest. The Governor's tho' larger are not kept half so nice.'[33] His description of the furnishings provides a 'catalogue' of the contents of a gentleman's parlour:

> [The sitting room is] now nearly furnished with all our furniture, indeed entirely except the Sofa. We have on the Floor a small Wilton Carpet. There is also a good Glass, a Dozen very neat new Cedar Chairs with Indian cane bottoms, a Pembroke Table of Cedar & two other Tables.[34]

Impractical and expensive (both in terms of available space in the home and in cost of fitting out), colonists nonetheless went to great lengths to achieve a middle-class parlour (Plate 4).[35] The radical changes in transport, mechanisation and industry that occurred in the course of the century brought little by way of change to the parlour. Instead, by reducing the cost of furniture and fabrics and making key objects like the piano far more accessible, the 'revolution' in industry made it far more achievable.

The popularity of this room and the conservative approach taken to its contents is also evident from surviving Sydney auction notices of the 1830s and 1840s. Furniture and fittings remained expensive (compared to prices paid in Britain) until well into the second half of the nineteenth century, a fact that encouraged returning colonists to sell their household contents. Auction notices were therefore unusually detailed and provided excellent insight into the furnishings thought appropriate. By giving access to the homes of the gentry, auctions were also a means of obtaining information about fashions and of reinforcing the ideal.[36] Although wealth and social status might have effected the materials

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smooth, cut lawns, compared to the rough uncut areas beyond; their best rooms by smooth plastered walls, polished furnishings and fine carpets on the floor.

33 Ellis Bent to his mother, 4 March 1810 quoted in Lane & Serle, *op. cit.*, 5.

34 *Idem.*

35 Such public rooms could only be created by sacrificing private space. At the same time that colonists were reserving at least one room purely for entertainment, family members were crowded into the remaining rooms, with even adult children sharing beds as well as bedrooms. Davidoff and Hall, *op. cit.*, 375.

36 An 1854 New York auction of the contents of an 'elegantly furnished private mansion' was described in the press as, 'The house looked as if the owners had only gone out for morning calls, and might be expected back at any moment. The curtains, mirrors, suites of elegant furniture set forth in the catalogue ... were arranged as if for an ordinary reception day, instead of the press of an ignoble crowd — second hand furniture men, small boarding house people, ladies, porters, idle spectators and busy-bodies thronging around.' Quoted in Grier, *op. cit.*, 23.

used and degree of elaboration, the type of furniture and its arrangement remained similar in the city and the bush, in Macquarie Place and in Newtown (Plate 4).

Prosper de Mestre's drawing room could be said to represent the height of fashion when it was auctioned in 1844. A victim of the 1840s recession, prior to his insolvency De Mestre had been a prosperous Sydney merchant, whaler, property owner and a director of the Bank of New South Wales.[37] His drawing room featured:

> A most elegant and complete set of Drawing Room Furniture, in rosewood, *en suite*, comprising, Loo Table, two Sofa Tables, two Card Tables, Cheffionier [sic], Work Table, two Couches, twelve Chairs, four Ottoman Stools, Music Stool, Three-tier Music Stand, and pair of Fire Screens.
>
> The Chairs, Couches, Ottomans, and Stools, are stuffed with the best Hair, in Canvass, covered with rich Blue Damask, having additional Print Covers, and the whole of the Tables are furnished with embossed Leather Covers.[38]

In addition there was a grand pianoforte 'equal to any instrument in the Colony, cost £180', a Brussels Carpet and 'lots of music'.[39] The owner of the far more modest two bedroom 'Camperdown Cottage' in Newtown could also boast a horsehair sofa, though in the less fashionable Spanish mahogany, 'twelve very superior hair-seated Trafalgar chairs, with carved rails', a selection of small tables and a Brussels carpet. Around the walls stood a pianoforte, canterbury and 'superior' pedestal cabinet while a full length portrait of Queen Victoria in 'handsome gilt frame, surmounted with crown' lent an undeniable air of respectability to the room.[40] Even the simply furnished boarding house of Mrs Butler in Macquarie Place had a horsehair sofa, 'Handsome square pianoforte' and a (less expensive) Kidderminster carpet in the front sitting room.[41] This convergence of taste as regards appropriate furnishings for the best room is indicative of two things: first, the existence of a common ideal or image of the 'drawing room'; second, that this ideal was so important to the family's social status that householders were careful not to stray too far from its agreed 'recipe' of contents.

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37 G. P. Walsh, 'Prosper De Mestre' in A.G.L. Shaw (ed.), *Australian Dictionary of Biography I: 1788-1850 A-H* (Melbourne: Melbourne University Press, 1966), 305.

38 *Catalogue of Elegant Household Furniture, Pianoforte etc.: Prosper De Mestre, Liverpool and Elizabeth Streets, Hyde Park* (Sydney: Statham & Forster, 1844), 5.

39 *Ibid.*, 5, 6.

40 *Sale of Household Furniture: Camperdown Cottage, Newtown, in Consequence of the Proprietor being about to Visit England* (Sydney: Kemp and Fairfax, 1846), 5.

41 *Superior Household Furniture: Mrs Butler, Macquarie Place* (Sydney: Kemp and Fairfax, 1845), 3.

But it was not enough just to have the furnishings. The mark of the genteel family was to be able to use them to create a refined environment, and the principal means of doing so was music. The almost universal presence of the piano in the drawing rooms of Sydney's middle-classes, as evidenced by the auction notices, reveals the primacy of music as *the* genteel entertainment.[42] As would be expected, Sir George Gipps, Governor of New South Wales, had 'one grand square pianoforte by Broadwood & Sons, one of the finest instruments in the colony'. In addition, Gipps had a number of pieces of specialised music 'equipment': a music stand, music stool and a music desk.[43] Prosper De Mestre had two, Camperdown Cottage had a 'Pianoforte by Stoddarts and Son ... very fine toned',[44] W. Gibbes of 'Beulah' on the North Shore had a Grand Piano-forte and a Rosewood Cottage Cabinet Piano and Henry Ginn had a cottage pianoforte, a silver ebony flute and a music box which played twelve tunes including 'Buy a Broom' and 'Love thee Dearest'.[45] In 1853, the young assayer at the Mint, William Jevons, debated with himself as to the spending of his first salary cheque: 'Possibly I may even spend £30 in getting an harmonium, as I wish very much to have a little music; but this may seem very extravagant.' However, his sense of economy did not last long, and he was shortly writing to his sister of the pleasure he had in playing his new instrument.[46]

Music provided both a means of entertainment and a way to 'show off' the accomplishments of the daughters of the household. The ability to sing and play a musical

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42 Indeed, there was a piano on the First Fleet. Charles Bouchier Worgan, a surgeon on HMS *Sirius*, brought a piano with him to New South Wales. He is said to have given Elizabeth Macarthur piano lessons and left the piano with her when he returned to England in March 1791. Angie Testa, 'Doctor Worgan's Piano', *Carter's Antiques & Collectables*, July 1995, 64.

43 Gipps arrived to take up his appointment in 1838 with his wife Elizabeth and son. He was Governor for eight years and, like his predecessors, was expected to provide his own furnishings for Government House. *Government House: A Catalogue of Plate, Books, Household Furniture, Pianoforte, Horses, Carriages, Cows etc. The Properties of His Excellency Sir George Gipps* (Sydney: Kemp and Fairfax, 1846), 5.

44 *Prosper De Mestre, op. cit.*, 3, 5; *Camperdown Cottage, op. cit.*, 5.

45 Catalogue of Household Furniture, Grand Piano, at Beulah (on the North Side): The Residence of W. Gibbes (Sydney: Statham & Forster, 1843), *Elegant Household Furniture, Superior Pianoforte: Henry Ginn in Consequence of his Intended Departure for England* (Sydney: Kemp and Fairfax, 1846), 8, 9.

46 William Stanley Jevons to Lucy Jevons, 28 May 1853. See also the description of his room in William Stanley Jevons to Herbert Jevons, 9 March 1857 in R. D. Collison Black (ed.), *Papers and Correspondence of William Stanley Jevons*, II (London: Macmillan, 1973), 110, 272.

instrument was regarded as almost indispensable to the middle-class woman and thus an essential part of her education. [47] Writing home to England about the conditions faced by governesses in Australia, Louise Dearmer reported:

> It is useless for anyone to come here as Governess who cannot play the piano .... they have such a mania for music. I have been very much amused to hear the tones of a really tolerable Piano issuing from a little cottage, one could wonder where they could find room for it. Passing through the streets in the evening music seems to come from every house .... I must add that in many cases it is a libel to call it music, but I think they are not very particular as long as it is a noise.[48]

In her study of genteel society in Melbourne, Penny Russell points out that singing and playing the piano provided women with almost their only opportunity for a positive expression of gentility and taste.[49] However, it would seem that it was music that was important, with little distinction made as to what type of music.

The other major genteel entertainment was the tea party. The taking of tea provided a less formal opportunity for men and women to socialise and for hosts to show off their best room. Its popularity in Australia is evident both in the remarks of contemporaries and in the auction notices. Anabella Boswell wrote of tea being served a part of the general refreshments provided before a dance;[50] and Fanny Macleay wrote of tea and conversation, 'I was made very happy one night last week when I took tea with our next neighbour Mrs Forbes, the wife of our Chief Justice, who gave me a most charming account of Cuba.'[51] An elaborate ritual with a complex material culture, the tea party provided the perfect opportunity for display. As auction notices reveal, ownership of tea equipment was almost universal and, in some houses, could be quite extensive. Thus on his return to England in 1844 the Royal Engineer, Lieut. Col. Barney, sold two china tea sets, two silver teapots, a 'handsome coffee pot', sugar basin, cream jug, milk jug and twenty-one silver tea spoons.[52] Mashfield Mason, returning to England in 1845, sold a plated teapot, sugar basin, milk jug

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47 See Russell, *op. cit.*, 87ff.

48 Patricia Clarke, *The Governesses: Letters from the Colonies, 1862-1882* (Hawthorn: Hutchinson, 1985), 105.

49 Russell, *op. cit.*, 87-91.

50 She described the refreshments as being 'with tea and coffee, punch and negus, cakes etc', 19 March 1847, *Anabella Boswell's Journal: Australian Reminiscences* (Sydney: Angus & Robertson, 1987), 161.

51 Fanny Macleay to William Macleay, 12 June 1826 in Earnshaw and Hughes (eds), *op. cit.*, 57.

52 *Catalogue of Elegant Household Furniture: Lieut. Col. Barney* (Sydney: Welch [1843]), 5. Barney was married with five children and by 1837 was earning £500 a year as superintendent of Public Works. 'George Barney' (1792-1862) in Shaw (ed.), *op. cit.*, 60-61.

and cake tray, Britannia metal coffee and tea pots and a floral and gold tea and coffee set.[53] The comparatively modest cottage of Mrs C. Smith had a plated silver tea service, two German silver tea caddies, two tea trays and two sets of tea china.[54] Henry Ginn had a forty piece French china tea service, 'painted with gold edge', and a forty-one piece gilt edge china tea service, a Britannia metal teapot and coffeepot and twenty-four silver tea spoons.[55]

For those houses sufficiently grand to afford two common rooms, the formality of the drawing room was complemented by a 'family parlour' which, though still removed from any suggestion of work, had greater emphasis on ease and comfort. The family parlour of 'Ultimo House', the substantial mansion built by John Harris on the Pyrmont peninsula,[56] had a horsehair sofa, rocking chair and morocco elastic spring easy chair.[57] However, whether in possession of one parlour or two, the ideal image of the family was of parents and children gathered around a central table, 'in repose' but not idle. As Grier has argued, this image was a clear example of the ways in which symbolic meanings in furnishings were crafted from the conjunction of necessity and desire. The expense of artificial light meant that the family had to gather around the one light source, usually placed on a central table. The desire to find fulfilment in domestic life resulted in this practical necessity becoming the symbol of family unity and the domestic ideal.[58]

Surviving images of early nineteenth century interiors frequently capture this ideal. Caroline Brownrigge's sketch of her home at Port Stephens shows the family gathered around the central table reading, writing and sewing whilst one young man plays the piano

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53 *Superior Household Furniture and Splendid Oblique Grand Pianoforte: Property of Mashfield Mason, who is Leaving the Colony* (Sydney: Kemp and Fairfax, 1845), 6.

54 *Catalogue of Household Furniture: The Property of Mrs C. Smith* (Sydney: Thomas Trood, [1846]), 4.

55 *Ginn, op. cit.*, 5.

56 Elizabeth Macquarie, shown a picture of 'Ultimo House' whilst on her journey to New South Wales, wrote, 'The Park is stocked with Deer, and it looked altogether to be in a much higher style than anything we expected to find in the New World.' Quoted in Barry Dyster, *Servant & Master: Building and Running the Grand Houses of Sydney, 1788-1850* (Sydney: University of New South Wales Press, 1989), 27.

57 *A Catalogue of Elegant Household Furniture at Ultimo House* (Sydney: F. Grant, 1842), 5.

58 Grier, *op. cit.*, 85. See also Bushman, *op cit*, 259.

and another looks on. These activities conveyed the key requisites of Victorian family life — industry and gentility — showing that even in a comparatively isolated area the niceties of civilised life had been preserved (Plate 1).[59] In his *Social Survey of Sydney,* William Jevons equated the glimpse of the family gathered round the table to domestic bliss:

> The interiors of all the dwellings, too, with few exceptions appeared cheerful where a glimpse could be obtained. The family was generally round the central table or sitting about on chairs and sofa. The females were generally engaged in needlework; all were talking.[60]

He documented his own experience of just such a scene in a photograph taken of a gathering in his landlord's drawing room. Members of the household are gathered around a central table reading and looking through photograph albums whilst his landlady, Mrs Miller, is seated at the piano (Plate 5).[61]

It is clear that increasing numbers of colonial households, anxious to reinforce their social status, and placing a new importance on family life and the domestic circle, turned to material possessions — furniture, carpets, curtains and dinnerware — for reassurance. The striking similarities in parlour furnishings between households on all rungs of the social ladder point to the clear definition of what was thought appropriate. Such definition was all the more significant since the parlour was a comparatively recent invention; yet its occupants were already extremely conservative about what it constituted. Neither geographic isolation nor climatic difference forced a radical rethinking of either the planning or furnishing of Australian homes. Indeed, the impact of migration to a new country only served to reinforce the conservative tendencies of middle-class British families. As the letters of Ellis Bent reveal, there was considerable concern amongst men as well as women that their colonial home might not properly reflect the social aspirations of its owners. Such anxieties were particularly pronounced in migrant communities. Traditionally, family, birthplace, church, village or town connections dictated one's position in society and town relations. However, in New South Wales, such links were often fragmentary, and there was the added anxiety of a possible 'convict stain'. Both Burke's

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59 Miss Caroline Brownrigge, 'An Evening Gathering at Yarra Cottage, Port Stephens, 1857', Lane & Serle, *op. cit.*, 98.

60 Quoted in *ibid.*, 107.

61 William Stanley Jevons, 'Drawing Room at Double Bay', c. 1858. *Ibid.*, 104.

and Debrett's *Peerage* were popular works in the colonies, appearing in numbers of auction notices and book sales, and one can imagine the ladies and gentlemen of Sydney hurrying home from a society drawing room to check on the claims of the latest newcomer.[62] At the same time, the newcomer would refrain from the public display of his domestic haven until all the furnishings and fittings necessary for respectability were in place.

4. A 'Comfortable Residence' and a Fine Garden

In England, the charms of domesticity had much to do with the 'horrors' of industrialisation, whereas in the colonies their significance lay more in the evidence they provided of progress, that the landscape had been conquered and contained, and civilisation attained. Thus, although Sydney may have been far less industrialised than Manchester, the same enthusiasm for quitting the town in favour of suburbia can be found in early nineteenth century New South Wales. John Thompson writing to the architect and author, Loudon in 1833, reported that:

> Sydney is, I am afraid, becoming very unwholesome, the houses being too much crowded, and proper arrangements for drainage etc, not having been made when the town was originally laid out. I have found my own health, and that of my children, sensibly improved by merely moving to a residence within reach of a sea breeze.[63]

As a result, the garden held the same importance in Australia as it did in England and provides further evidence of the conservatism of the colonists. For they did not just try to cultivate trees and flowers in their new home, despite the radically different temperature and rainfall they aimed for an *English* garden.

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62 Sir George Gipps sold his copy on leaving the colony as did William De Salis. *Government House, op. cit.*, 11; *Catalogue of Choice Library, Superior Household Furniture: W. F. De Salis, Fort Street, Leaving* (Sydney: Welch, [1844]), 6. See also *Catalogue of a Gentleman's Extensive and Valuable Library: 800 Volumes* (Sydney: Kemp and Fairfax, 1843), 8. This sale had Debrett's *Peerage*, Debrett's *Baronetage* and Nicholas' *Peerage*. A three volume set of Burke's *Peerage and Baronetage* was also listed in *Catalogue of Choice and Select Library of John Gordon* (Sydney: Kemp and Fairfax, [1845]), 3.

63 Quoted in Broadbent, *op. cit.*, 260.

Defenders of native flora were in the minority as new settlers uprooted gums and banksias, replacing them with pines, oaks, roses and herbaceous borders.[64] The first colonial gardening almanac was published as early as 1806,[65] but recourse was also had to English works, notably Loudon's *Encyclopedia of Cottage, Farm and Villa Architecture and Furniture*. First published in 1833, this went through at least eleven editions between 1833 and 1869. Copies could be found in the libraries of the Surveyor General, Sir Thomas Mitchell (whose house, 'Carthona', was a realisation of 'A Villa in the Old English Manner'), the architect Mortimer Lewis,[66] the Colonial Secretary Alexander Macleay[67] and Hannibal Macarthur.[68] Jane Franklin had a copy in Tasmania, and Conrad Martens amalgamated several designs from Loudon for his house in Sydney.[69] The deputy Surveyor General, John Thompson, was a correspondent to the *Architectural Magazine*, one of Loudon's journals, and provided a number of articles on architecture, planning and suburban developments in colonial New South Wales. Loudon's work was particularly influential in reinforcing the ideal of the middle-class home as the detached cottage in suburbia. As he wrote in *The Suburban Gardener*, 'We shall prove in this work that a suburban residence, with a very small portion of land attached, will contain all that is essential for happiness.'[70]

The lengths colonist were prepared to go to realise this ideal is most evident in the pride they took in creation of a lawn. Surely this was the most impractical of all middle-class desires given the heat and drought of Sydney and Melbourne, yet surviving material

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64 Mrs Meredith was horrified at the 'system of clearing ... totally destroying every native tree and shrub, giving a most bare, raw and ugly appearance to a new Place'. Quoted in Howard Tanner, *Converting the Wilderness: The Art of Gardening in Colonial Australia* (Sydney: Australian Gallery Directors Council, 1979), 9. See also the discussion of gardens in *ibid.*, 77-79.

65 This was published by the founder of the *Sydney Gazette*, George Howe.

66 See John Murphy and Kathryn Norris, *'The Most Useful Art': Architecture in Australia, 1788-1985* (Sydney: The Library Council, 1985).

67 *Catalogue of an Extensive and Valuable Library of nearly 4000 Volumes: The Library of Alexander McLeay* (Sydney: Welch, [1846]), 14.

68 *Catalogue of Books: Library of H.H. Macarthur* (Sydney: Welch, 1848), 3.

69 For a discussion of Loudon's influence in Australia see Joan Kerr and James Broadbent, *Gothick Taste in the Colony of New South Wales* (Sydney: The David Ell Press in association with the Elizabeth House Trust, 1980), 17-22. See also Robert Griffin and Roanna Ovenden, *The Making of the Australian Home, 1800-1930* (Sydney: Historic Houses Trust of New South Wales, 1993).

70 Quoted in Davidoff and Hall, *op. cit.*, 189.

evidence reveals that despite the obvious difficulties of establishing and keeping a green lawn, many did so.[71] Paintings of the principal houses of Sydney invariably showed the house surrounded by fine lawns (Plate 6). Alexander Macleay's 'Elizabeth Bay House' had a 'splendid open lawn' in front and Lycett's view of 'Elizabeth Farm' showed a house sitting in the midst of fine parkland stretching down to the river.[72]

Just as the piano, the carpet and the suite of parlour furniture were critical components of the interior of the middle-class home, so the lawn, flowers and trees defined the exterior. And just as great lengths were pursued to attain appropriate furnishings, so enormous efforts went into the garden. Annie Baxter, not otherwise noted for her comments on domestic issues, nonetheless wrote with pride of her garden, which was 'looking very pretty just now — and really in tolerable order'.[73] Undoubtedly the most pathetic indication of the importance of flowers in defining 'respectability' can be found in Henry Lawson's *Water them Geraniums.* Mrs Spicer, living in dire poverty with a large family in the bush outside Gulgong, clung to her few remnants of 'respectability' including 'sticks' of geranium growing against the bark wall near the door.[74]

The garden, as much as the house, had become a defining space for middle-class status. Whereas Eliza Darling was painted surrounded by the accoutrements of a formal drawing room, Julia Johnston was painted in her family's garden (Plate 7).[75] This painting is a particularly interesting evocation of the nineteenth century relationship between class and

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71 The lawn was the middle-class equivalent of the eighteenth century nobleman's park. The first lawn mowers were manufactured in 1830 and the attempts of the middle-class male to achieve a fine lawn began. *Ibid.*, 371-373

72 Joseph Lycett, 'View of a Residence, Near Parramatta, the Property of John McArthur, Esq', *Views in Australia & New South Wales & Van Diemen's Land* (London: J. Souter, 1824), np. Bushman describes such gardens as 'an artificially refined space from which the house would rise up to greet its guests', *op. cit.*, 135-137.

73 Annie Baxter, 24 October 1843, 'Journal at Yessaba' in Lucy Frost (ed.) *No Place for a Nervous Lady: Voices from the Australian Bush* (Melbourne: McPhee Gribble/Penguin Books, 1984), 115.

74 Henry Lawson, 'Water them Geraniums' in *Joe Wilson's Mates* (1888)(Melbourne: Penguin Books, 1988,), 55.

75 This may have been painted at least partly as a *memento mori* since the family vault (where her brother and father were interred) is clearly visible in the middle ground. However, the fact remains that a garden landscape was thought an appropriate setting for a middle-class woman. Patricia R. McDonald and Barry Pearce, *The Artist and the Patron: Aspects of Colonial Art in New South Wales* (Sydney: Art Gallery of New South Wales, 1988), 28, 29.

material surroundings for Julia Johnston's social status was fragile. She was the illegitimate daughter of a Jewish convict, Esther Abrahams, and a military officer, Lieut.-Col. George Johnston, whose career had ended in disgrace when he became involved in the mutiny against Bligh. It was therefore important that any representations of her should reinforce the family's 'gentility' for, despite their wealth, the Johnstons would have had to work hard to gain access to the 'best circles'. Her fashionable dress and garden surrounds, with winding path, flowers and shrubs, were a clear statement that she had risen above the circumstances of her birth.[76] As such she was the ideal product of an upbringing that ensured she would fulfil her role of 'angel in the house' and, indeed, that no other role was open to her.

5. 'The Formation of Domestic Virtues': The Education of Young Girls

The domestic ideal of the Australian middle-class home was reinforced by a view of women's education which, from the first, had particular importance in the self-image of the new colony. As Governor Bligh was advised in 1806:

> In a settlement, where the irregular and immoral habits of the parents are likely to leave their children in a state peculiarly exposed to suffer from similar vices, you will feel peculiar necessity that the government should interfere on behalf of the rising generation and ... endeavour to educate them in religious as well as industrious habits.[77]

A range of public and private schools were established catering to the children of all classes. Whilst the curriculum might vary, the common factor was the clear distinction made between what was necessary for girls and for boys. Girls' education focussed on their spiritual and moral welfare rather than on skills, and was a preparation for life in general rather than a career. Boys' education was completely the reverse, focussing on skills and a future career. [78]

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76 For a discussion of Julia Johnston as an example of fashionable dress see Margaret Maynard, 'Civilian Clothing and Fabric Supplies: The Development of Fashionable Dressing in Sydney, 1790-1830', *Textile History*, 21(1),(1990), 87-100 at 98.

77 Quoted in Brian H. Fletcher, 'Religion and Education' in James Broadbent and Joy Hughes (eds), *The Age of Macquarie* (Melbourne: Melbourne University Press, 1992), 75-87 at 82.

78 See Russell, *op. cit.*, 145-146.

The hopes held for the education of young girls were eloquently expressed in the initial plans for the Female School of Industry. Begun by Mrs Darling, it aimed to educate the daughters of convicts, ex-convicts and poor settlers for a career first as domestic servant and ultimately as wife:

> These institutions aim at an object intimately connected with the highest interests of the country — the formation of domestic virtues; and whether the pupils hereafter act in the capacity of household servants, or in that of wives and mothers, the benefits derived from so careful a training will be neither few nor small. We do, therefore, most earnestly appeal to the liberality of the public, on behalf of an establishment which purposes to add to the felicities of *home*, and to embellish with fresh attractions that endearing retreat — the *domestic circle*.[79]

The School took twenty boarders, half of whom were aged between ten and fourteen and half between seven and ten. Their expenses were met by Mrs Darling and a list of 'ladies and gentlemen' that essentially records all the men and women 'of note'.[80]

The history of this school provides a good illustration of the colonial approach to the education of young women generally. The timetable dictated a rigorous daily regime, with every minute accounted for between six o'clock, when the children rose, and half past eight at night, when they went to bed. Educational priorities were apparent in the division of time. Lessons were principally in moral and religious instruction with some training in domestic work and a smattering of 'learning': each day two and a half hours were given over to needlework, whilst reading, writing, spelling and sums were compressed into two and a quarter hours. [81] All the housework was done by the girls themselves, who were a mix

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79 *Sydney Gazette*, 2 May 1829, 2. The authors of *Creating a Nation* argue that the idea that women could make men good was new and was linked to the development of the temperance movement. However there is clear evidence that this approach pre-dated the emergence of the temperance movement in New South Wales and a stronger link is to the Evangelical movement in England. A surprisingly large number of the influential men and women in Sydney were Evangelicals, one of the most prominent being Mrs Darling.

80 For example, in 1828, the School had the novel idea of asking for donations of cows. Among the benefactors were: Sir John Jamison, Mr and Mrs Berry, Mr Wollstonecraft, Mr Levi, Mrs A. Spark, Major D'Arcy, Mrs Robert Cooper, Mr Oatley, Mrs Simeon Lord, Mrs Lyons, Mr Rankin, Mr G. Innes, Mr James Busby, Mr J. Blaxland. *Sydney Gazette*, 12 May 1828, 1.

81 In the initial advertisement about the School it was stated, 'Several Ladies in Sydney, having considered that a School, for the Education of Female Servants, would be very desirable, it is proposed to form one, by Subscription'. *Sydney Gazette*, 18 March 1826, 1. For a discussion of the significance of the fine division of time the girls were subject to — 'Every hour, every day, the same regularity, industry and cleanliness were to be seen' — see Graeme Davison, *The Unforgiving Minute: How Australia Learned to Tell the Time* (Melbourne: Oxford University Press, 1993), 24-25.

of destitute children — 'orphans, or selected from the families of distressed persons, incapable of bringing them up with moral and religious instruction'[82] — and girls whose family or friends paid ten pounds a year for their keep. At fourteen the girls were put out to service and every girl on leaving received an outfit of clothes, a Bible and prayer book and one pound. If she stayed with the same mistress for two years, she received an additional two pounds and after four years another three pounds. If she married before the expiration of that time, she was given five pounds and a cow.[83]

In its early years, the school attracted a great deal of comment in the *Sydney Gazette*, and again the emphasis was not on the quality of education provided, but rather upon the degree to which its pupils met the domestic ideal:

> The internal arrangements of the School, were such as to call forth the admiration of every visitor. The way in which the building is laid out — the extreme cleanliness and neatness of the rooms — the nicety with which every apartment is furnished — the industry and attention which everywhere appeared conspicuous, seemed to be only equalled by the sedulous formation of the youthful mind to habits of morality and piety.[84]

Since for the most part these were the children of convicts, it is not surprising that there was such emphasis placed on their moral improvement. However, it is significant that no reference is made in this, or successive articles, to the quality of their education. Indeed, a subsequent article in the *Gazette* described their education purely in terms of morality and religion — 'they have been habituated to order, regularity and decency of behaviour, in which religion and morality are peculiarly attended to.'[85] Knowledge was only important in the degree to which it assisted them in obtaining work as domestic servants. The only controversy the school seemed to attract — aside from its perpetual indebtedness — was whether or not the girls were too fashionably dressed. A correspondent to the *Gazette* in

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82 *Sydney Gazette*, 26 March 1839, 2. The children of convicts under sentence were often identified as 'orphans' regardless of whether their parents were alive or not. Alan Atkinson and Marian Aveling (eds), *Australian 1838* (Sydney: Fairfax, Syme & Weldon Associates, 1987), 91.

83 D. Peyser, 'Study of the History of Welfare Work in Sydney, from 1788 to about 1900', *Journal of the Royal Australian Historical Society*, XXV(2), (1939), 89-128.

84 The School published an annual report to which the *Sydney Gazette* always responded favourably referring to the students as 'neat', 'clean' and 'decent', and, thereby epitomising the ideal of womanhood. See *Sydney Gazette*, 20 December 1826, 2; 19 October 1827, 2; 10 March 1831, 2. See also *Australian Quarterly Journal*, I(1828), 204-209, 'the house itself a perfect pattern of cleanliness, we confess, we never saw children look more healthy and happy, more neat in their dress, more orderly or more active in their household labour'.

85 *Sydney Gazette*, 16 April 1828, 3.

1827 complained of their 'large flaunty-leafed bonnets undulating in the air'. The editor sprang to the girls' defence, suggesting that the bonnets were not only becoming but being home-made were also good examples of the industrious nature of their wearers.[86]

The difference between the education of working girls and those of the middle-classes lay not so much in what was taught, as in the range of domestic skills thought appropriate to each class. There was the same emphasis on morality and religion, but where working class girls would be taught practical domestic skills, middle and upper middle-class girls were taught 'accomplishments': music, singing, dancing, mathematics, geography, history and languages. Girls were not educated for achievement or to be able to establish an independent life, but rather for their role as manager (and moral guardian) of the home.[87] In 1848 a 'national' system of education was introduced in New South Wales making education compulsory to the age of fourteen. However, attendance dropped substantially after children turned eight and boys were far more likely to attend than girls. As for the curriculum, that for the girls continued to focus upon sewing. At the McDonald River National School, whilst girls spent six hours a week on needlework, three on singing and one on scripture, boys learnt geography and arithmetic. In Presbyterian schools in the same period, girls were taught needlework every afternoon and had no tuition in arithmetic at all.[88] One estimate suggests that only one in eighteen children attended school, a percentage that nonetheless compared well with Britain. This situation did not change greatly over the first half century of settlement, and by 1850, the average duration of schooling was still only two years.[89]

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86 *Sydney Gazette,* 14 May 1827, 3.

87 For a discussion of the relationship between reading material considered suitable for girls and the construction of separate spheres see Deborah Gorham, 'The Ideology of Femininity and Reading for Girls, 1850-1914' in Felicity Hunt (ed.), *Lessons for Life: The Schooling of Girls and Women, 1850-1950* (Oxford: Basil Blackwell, 1987), 39-59. For a history of education in Australia see Coral Chambers, *Lessons for Ladies: A Social History of Girls' Education in Australasia, 1870-1900* (Sydney: Hale & Iremonger, 1986).

88 At this time only one in every 183 children were enrolled in schools in New South Wales and forty-one per cent of all children in national schools were aged under seven. Noeline Kyle, *Her Natural Destiny: The Education of Women in New South Wales* (Sydney: University of New South Wales Press, 1986), 5.

89 *Ibid.*, 19. In the United States, the percentage of white female children at school was higher. In 1840, it was estimated at 38.4 per cent and in 1860, at 58.6 per cent. Maris A. Vinovskis and Richard M. Bernard, 'Beyond Catherine Beecher: Female Education in the Antebellum Period', *Signs,* 3 (3),(1978), 856-869.

The quality of girls' education was further undermined by its often peripatetic nature. Many were educated at home, and even when parents could afford school fees, boys were given priority. Anabella Boswell's education was typical. When she was eight, she was sent to a boarding school in Bridge Street, Sydney, then a year later taken away and after some months with no schooling, she and her sister were taught by a governess. This governess left, and the one hired in her place turned out to be a nursery governess and 'quite unsuitable'. Then her father's ill health caused the family to move to Lake Innes:

> My sister and I had some lessons to do most days, and we drew and practised by fits and starts, albeit much at our own sweet will. I read greedily such books as we possessed, chiefly the Waverley Novels, which then and always interested me .... I regret that some of the books we had were denied to us, among them Shakespeare, which seems strange to me now, but my mother was old fashioned in her ideas and somewhat of a disciplinarian.[90]

At other times she went for short periods to Madame Lubecki's school in Parramatta, and her education (which largely consisted of religion, sums, translations 'in the good old-fashioned style', spelling and grammar) was finished with three years at Lake Innes taught by her aunt.

Many colonial women were dissatisfied with the quality of education provided them. Joy Hooton in her research on women's autobiographies found only four, out of several hundred, who were consistently positive about their education. The remainder felt much like Jane Watts who wrote:

> The possibility of growing up an ignorant woman, with no knowledge of books save what she had acquired in childhood — the very opposite, too, of her well-educated, refined intelligent mother — was unpalatable to her in the extreme.[91]

In such an environment, self-education became critically important and books, newspapers and journals were to become the second major source of the domestic ideal.

Although it is difficult to calculate literacy levels during this period, colonists were known to be keen readers. In 1867, a governess recently arrived from England wrote, 'Literature is

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90 November 1839, *Boswell, op. cit.*, 46.

91 Mrs Jane Watts, *Family Life in South Australia Fifty-Three Years Ago* (1890) quoted in Joy Hooton, *Stories of Herself When Young: Autobiographies of Childhood by Australian Women* (Melbourne: Oxford University Press, 1990), 224-226.

much more brought forward here, in the general way, than at home because there are no new daily topics — the standing one is sheep — in which ladies take no part — of course.'[92] In 1838, it was estimated that three-quarters of men of all ranks could read and write and about half the women.[93] Clearly there was a link between class and literacy, but neither convicts nor working people were necessarily illiterate. The convict Margaret Catchpole was a keen reader, and books and newspapers were frequently mentioned in her letters.[94]

Although the first half of the nineteenth century saw a broadening of both the amount, and type, of material published, auction records and contemporary accounts reveal that the conservative tendencies apparent in women's education also operated to restrict their reading. [95] Women had less access to books than men and, no matter what their age, could find their reading matter censored.[96] At the age of twenty-seven, Rachel Henning had to be careful not to challenge what her uncle thought appropriate. Writing to her sister in 1853, she reported:

> We get very nice books from the Castle Library, but Uncle is very particular about what they read. Cary got the *Life of Salvator Rosa*, but was not allowed to finish it.
>
> We got a novel called *Ruth*, by the author of *Mary Barton* [Mrs Gaskell], but we took the precaution of keeping it out of Uncle's way.[97]

Non-fiction was thought more acceptable than fiction, but even then was limited to subjects such as religion, biography, history or travel, and certainly did not include the masculine

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92 Louise Geoghegan to Miss Lewin, 18 October 1867 in Frost (ed.), *op. cit.*, 193.

93 Atkinson and Aveling (eds), *op. cit.*, 414. This equates with American literacy figures at about the same time. See Vinovskis and Bernard, *op. cit.*, 867. Recent research on insolvency records has revealed a strong commitment to keeping books. Linda Young's research on Adelaide insolvency records reveals that twenty per cent of insolvents kept their books, a surprisingly high number given that there was a good market for books and by the time an insolvent estate was wound up anything that could be sold generally had been. Only necessities were kept and, clearly, for some people, books were necessities. Linda Young, 'Decency and Necessity: South Australia in the 1850s', *Journal of Interdisciplinary History*, XXV(1),(1994), 65-84 at 80.

94 For example on 8 October 1806 she wrote to her aunt and uncle, 'I send Mrs Cobbold the newspapers. I wish you could borrow them after a while. You would like to see them, I well know.' Quoted in Spender, *op. cit.*, 8.

95 *Sands* is frequently a frustrating source for information about trades. In 1858 Bookbinders were distinguished from Booksellers and Stationers. In 1861 the three were listed under Bookbinders, though the Directory rather confusingly states 'See also Stationers' yet there is no listing under this. *Sands & Kenny's Commercial and General Sydney Directory for 1861* (Sydney: Sands & Kenny's, 1861), 240.

96 Lending libraries gave only limited access to women and Mechanics Institutes, which provided particularly good libraries in rural Australian towns, were closed to women. See Davidoff and Hall, *op cit*, 291.

97 Rachel Henning to Annie, 27 September 1853 in David Adams (ed.), *The Letters of Rachel Henning* (Ringwood: Penguin Books, 1979), 4.

areas of politics or economics. Elizabeth Macarthur's reading list typified what was thought suitable for a lady. A favourite was Bishop Reginald Heber's *Narrative of a Journey ... from Calcutta to Bombay*, while other works mentioned were Mme. de Genis' *History of the Orléans Family* and Sir Thomas Mitchell's *Journal of an Expedition into the Interior of Tropical Australia*. When her son Edward was stationed in Ireland, she read all she could find about that 'unhappy and maybe ill-used country!!!'[98]

Despite these limitations, auction notices suggest that colonists had ready access to the major domestic works of the day. Works by William Cobbett, Mrs Ellis, Esther Copley and John Loudon were common, and all reinforced the notion of separate spheres. The 'elegant household furniture' of J.R. Wilshire included Cobbett's *Cottage Economy*.[99] An extremely popular work — by 1843 it was in its sixteenth edition — it harked back to a pre-industrial Arcadia when the working classes still made their own bread and brewed their own beer:

> Every woman, high or low, ought to know how to make bread. If she do not, she is unworthy of trust and confidence; and, indeed, a mere burden upon the community.
>
> Give me for a beautiful sight, a neat and smart woman, heating her oven and setting her bread! And if the bustle does make the sign of labour glisten upon her brow, where is the man that would not kiss that off, rather than lick the plaster from the cheek of a duchess?[100]

In *Cottage Economy*, Cobbett both lyricised Britain's past and provided instructions on moving back to it through rural self-sufficiency. Esther Copley's works were also available: in 1848, T.S. Mort auctioned copies of Copley's *Housekeeper's Guide*, which was a version of her *Cottage Comforts, With Hints For Promoting Them, Gleaned From Experience*. First published in 1825, this was addressed to 'the labouring classes' and provided a mixture of moral advice and practical hints. More religious tract than domestic guide, it was nonetheless extremely successful and by 1841 had run to seventeen editions.[101]

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98 Elizabeth Macarthur to Edward, 30 September 1847, quoted in Hazel King, 'An Upper Crust Colonial Widow: Elizabeth Macarthur, 1834-1850', *Push From the Bush*, 3(1979), 26-32 at 30.

99 *A Catalogue of Elegant Household Furniture: J.R. Wilshire, Removing into Town, Potts Point, Woolloomooloo* (Sydney: Kemp and Fairfax, 1848), 8. Although clearly of some value to the colonist it was an extremely conservative work. See Dena Attar, *A Bibliography of Household Books Published in Britain, 1800-1914* (London: Prospect Books, 1987), 104-106.

100 *Ibid.*, 28.

101 *Ibid.*, 107.

Whilst the popularity of these works must be taken as evidence of what fathers, mothers, and teachers thought appropriate, rather than what young women necessarily wanted to read, they reinforced accepted ideals of the home and of women's role in it. For all these popular writers, the only possibility for true happiness lay in the family home, overseen by a woman whose job it was to ensure that it was a place of gentility and refinement.

Conclusion

From first settlement to the mid-nineteenth century, the urban Australian home acquired a domestic identity, gender consciousness and moral economy. In refinement and self-approbation, Australians' homes, gardens and family life would not have been out of place in the newly created suburbs of London or Manchester, Philadelphia or New York. Although some concessions were made to climate (notably, the verandah), the layout of rooms, allocation of functions, the sharp divide between public and private spaces, and the precise catalogue of furnishings thought necessary resulted in a home to which the greatest compliment was, that it was 'just like England'. The experience of migration, which led to far higher levels of innovation in technology and work practice in industry and agriculture, did not have a similar impact on this model home. Rather, it made an already conservative environment even more so. For the achievement of home, garden and family was a powerful symbol of success, demonstrating that despite the isolation and difficulties inherent in establishing a colonial settlement, the landscape could be conquered and civilisation attained. And the point of reference for this success was the mother country. Whether English, Scottish, Welsh or Irish, colonists wanted to demonstrate to themselves and to their families at 'Home' that they had attained the ideal of 'home'. Colonists were therefore disinclined to experiment with the plan, material culture or management of that home.

By the 1850s, when golddiggers began to send photographs of their home and family back to England, it would invariably be of them standing proudly in front of a rough hewn fence enclosing a struggling garden with a winding path leading to a simple cottage with lace curtains at the window (Plate 8). The focus of emotion, and the nurturing place of the family's moral and spiritual welfare, the home had become far more complex, and the qualities needed to run it, far more sophisticated over the previous half century. As one of the first colonial women's magazines proclaimed, it had become women's sole occupation:

> The place we have proposed for ourselves is at the cheerful fireside and in the merry family circle ... with politics and such matters we shall have nothing to do, for such subjects are too big, ponderous, and stupid for us .... We shall interest ourselves wholly in affairs of the home department ... by giving the best information we can procure as to building, domestic management, care of health, education, the garden, the field and the poultry yard.[102]

As David Goodman has argued, the chaos and disruptions of the goldfields made this fragile haven all the more revered and any signs of domesticity all the more important.[103]

In such an environment machines — as belonging to that 'other' world of work — had no place. Although domestic reformers would see opportunities in the 'professionalising' of domestic work through the application of labour-saving devices, the following case studies will reveal that machinery was only embraced when it reinforced these ideals. It was easier therefore to penetrate 'public' spaces in the home than 'private' spaces, which not only had traditional work practices and technology, but also a substantial culture that had grown up around them. In the following chapters, I will examine the impact of technology on the 'fireside pleasures of domestic life' and argue that, although the home continued to change and develop, the enchantment of the 'merry family circle' underlay the Australian middle-class family's response to the machine. As we shall see, it was easier for the sewing

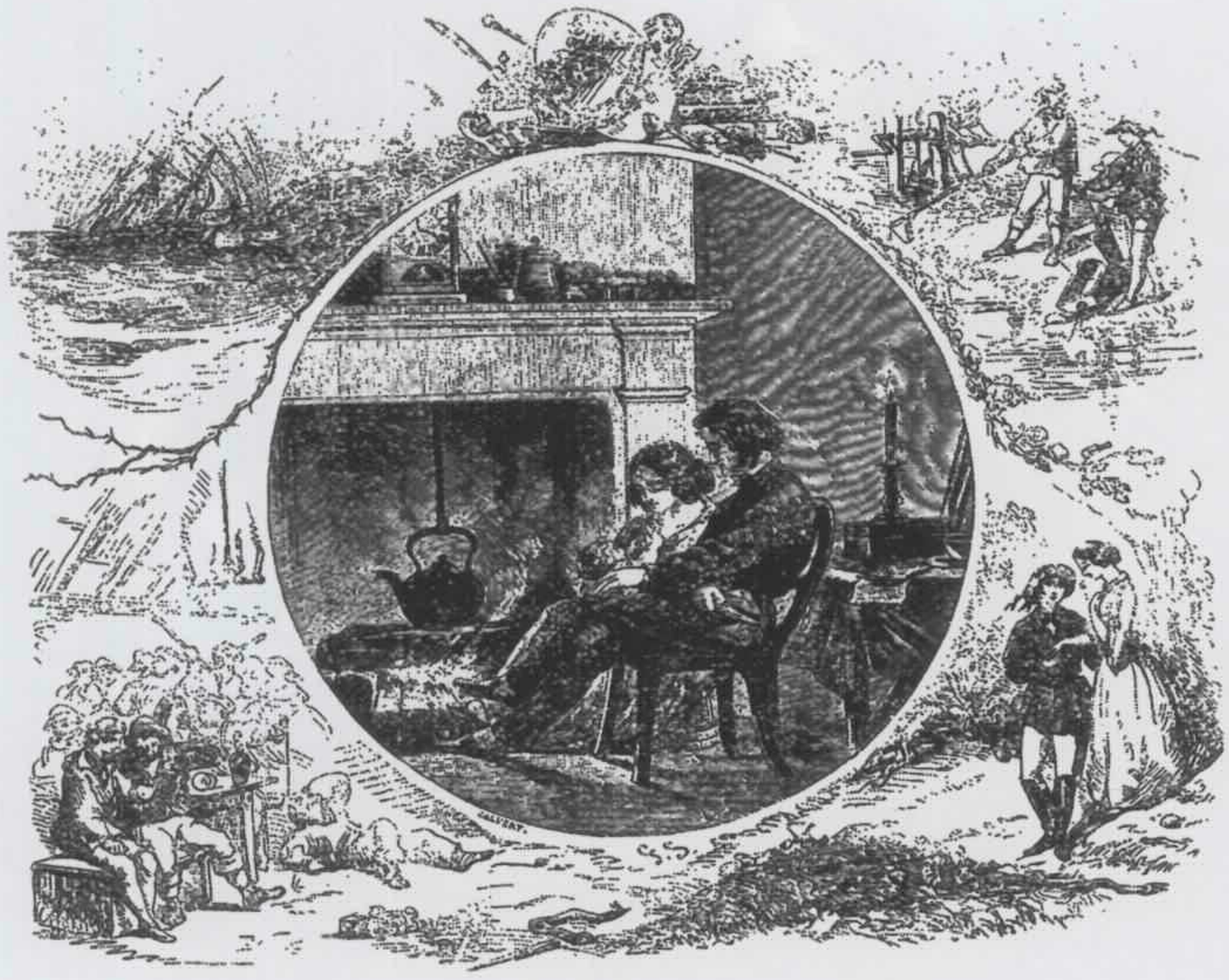
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102 *Melbourne Family Herald*, 30 September 1854, quoted in Maya Tucker, The Emergence and Character of Women's Magazines in Australia, 1880-1914 (Unpublished PhD Dissertation, University of Melbourne, 1975), 38. This was very similar to — and possibly based on — the motto of the English *Magazine of Domestic Economy* founded in 1835,' We are born at home, we live at home, and we must die at home, so that the comfort and economy of home are of more deep, heartfelt and personal interest to us, than the public affairs of all the nations in the world'. Quoted in Davidoff and Hall, *op. cit.*, 187.

103 P. Just walking around Melbourne's Canvas Town wrote that a 'peep' inside a tent would 'sometimes reveal such articles of higher civilization as a piano, from the melancholy strains of which brought forth by delicate fingers, would occasionally be heard "Sweet Home" '. Quoted in Goodman, *op. cit.*, 153.

machine to enter the parlour — by becoming yet another expensive piece of parlour 'furniture' — than it was for the cooking stove to enter the kitchen.

Plate 2



'Our Address', *Australian Home Companion and Illustrated Weekly Magazine*, 30 January 1857, 1.

Encircled by images of the uncertainties and trials of the outside world, this 'merry family circle' was an ideal to which many of the magazine's readers aspired. The simplicity of the furnishings and basic open hearth do not detract from the 'fireside pleasures of domestic life' enjoyed by these proud parents and their first child. The only modern object visible is an American clock on the mantlepiece.

Plate 3



Eliza Darling and her Children, oil painting by John Linnell, 1825. National Library of Australia.

This was painted the year the Darlings sailed to Australia as a companion piece to a formal portrait of the Governor-Elect, Ralph Darling. Whereas her husband's portrait showed him in military uniform and formal stance with just a hint of drapery in the background, Eliza Darling was surrounded by the accoutrements, and pleasures, of domestic life.

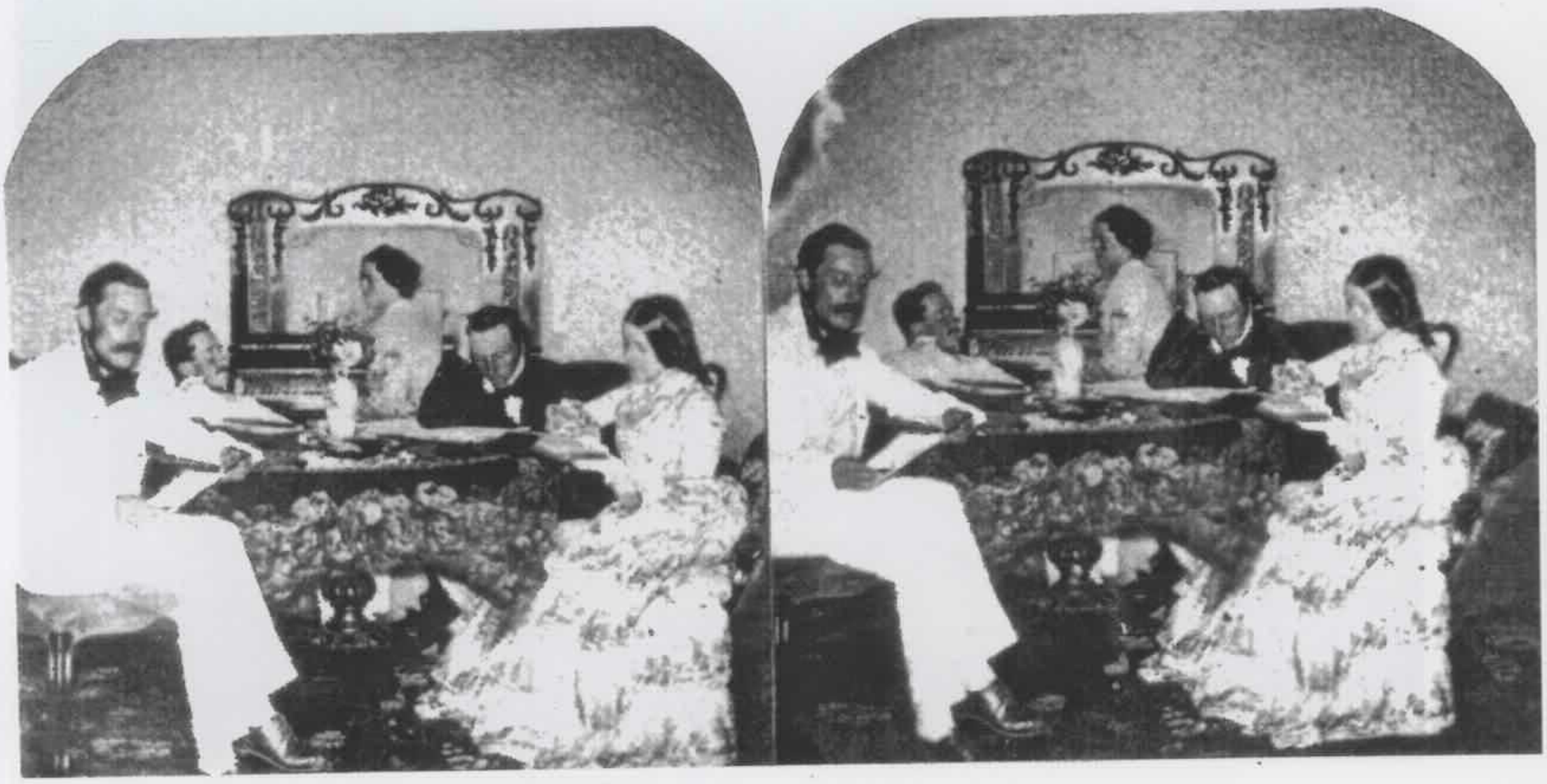
Plate 4



'The Parlor Window, 3 July' and the 'Parlor', pencil sketches by William Bunn, 1845-1848. Mitchell Library, State Library of New South Wales.

These sketches of the parlor at Dr James Fitzgerald Murray's home, 'Woden', in the Southern Alps reveal the importance placed on appropriate furnishings and the priority given to this room above all others. Although a small, makeshift house in an isolated community in rural New South Wales, 'Woden' nontheless had a parlour. Furthermore, whilst the rest of the house was largely furnished with boxes, this room had all that was necessary for gentility: central table, sofa, sideboard, carpet, curtains, family portraits and a bust of Lord Byron.

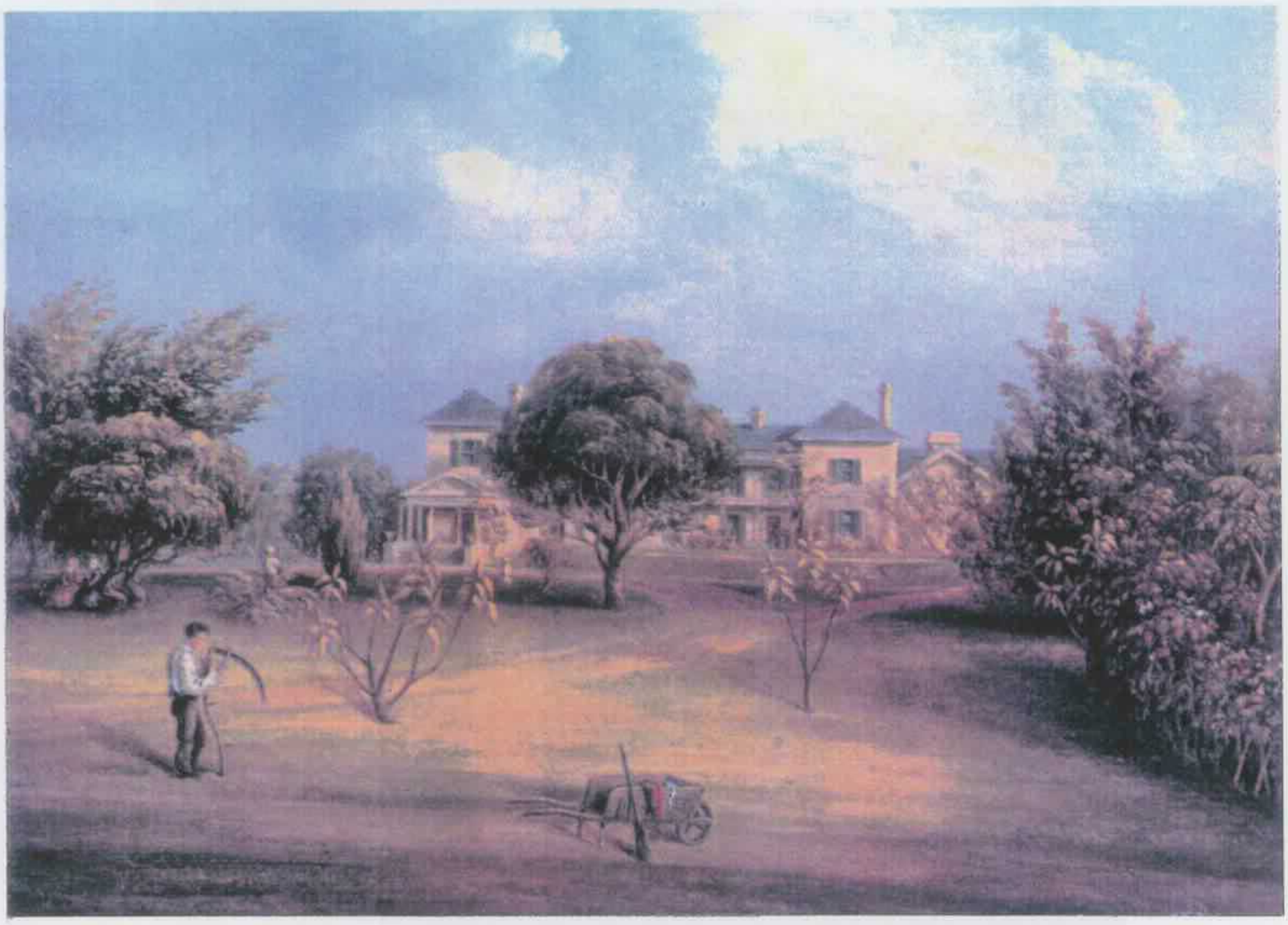
Plate 5



Drawing Room at Double Bay, photograph by William Stanley Jevons, c. 1858. John Rylands Library, University of Manchester.

Jevons' landlady, Mrs Miller, is seated at her upright piano whilst the rest of the company is gathered around the central table. Such images provide an impression of harmonious industry, that whilst middle class gentlemen might have to spend their days in the world of commerce their evenings were given over to genteel pursuits.

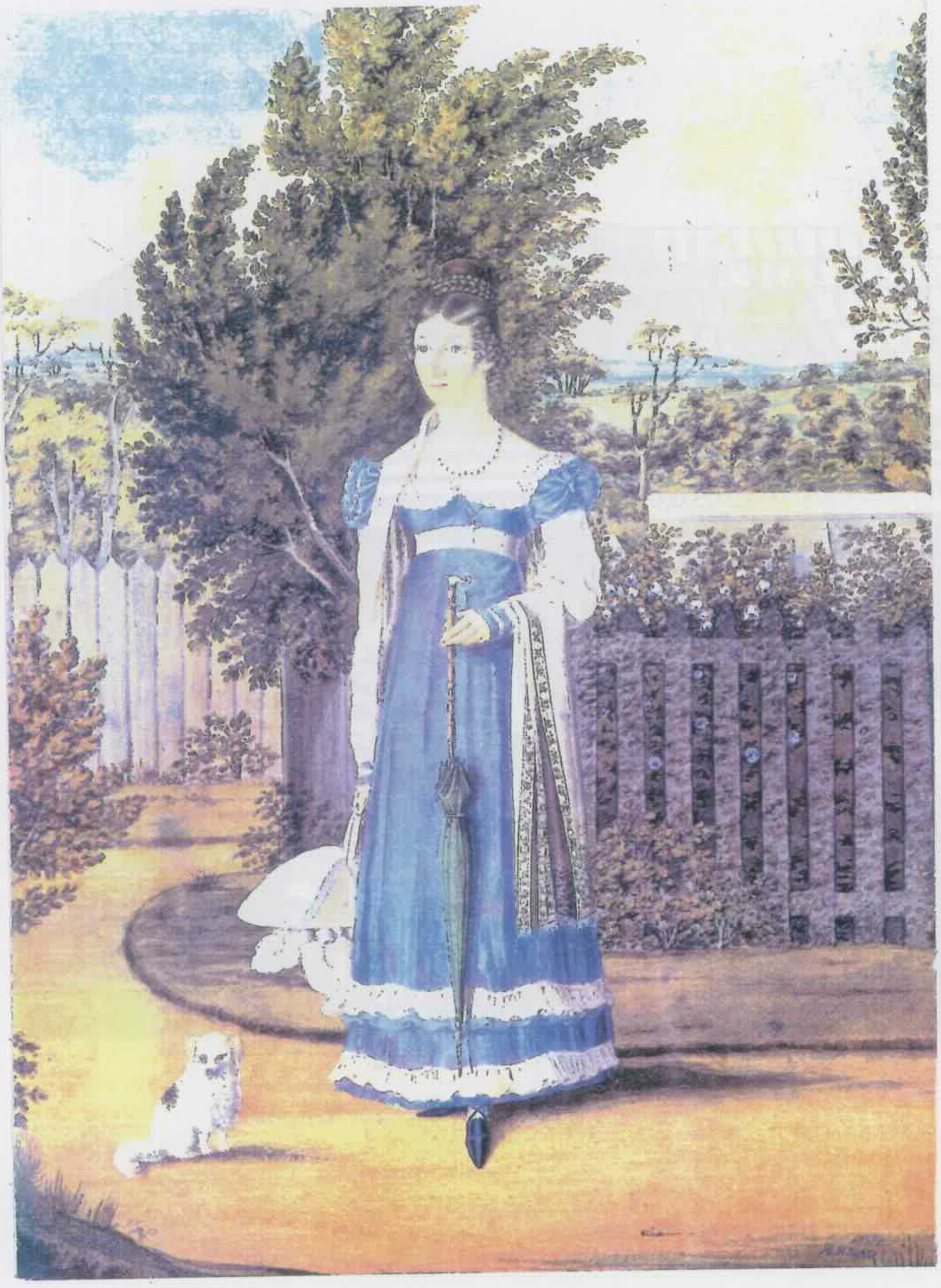
Plate 6



Craig End, oil painting by George Peacock, c. 1849. National Library of Australia.

'Craigend' was built by Sir Thomas Mitchell on his land grant at Darlinghurst, 'the most picturesque hill about Sydney'. Almost all traces of native bush have been cleared to reveal the house on a rise of the hill and to ensure an unobstructed view from its' windows. The lawn was a testament to Mitchell's enthusiasm for a garden in the English manner.

Plate 7



Julia Johnston, oil painting by Richard Read senior, 1824. Private collection.

Set in the grounds of the family property, 'Annandale', Julia Johnson is a model of colonial gentility. Fashionably dressed with her hair beautifully coiled, bonnet at her side and finely carved parasol she is ready for a walk; yet the delicacy of the fabrics and fineness of her shoes suggest she will not stray too far from her 'domestic circle'.

Plate 8



An unidentified family at Beaufort, Victoria, c. 1890. Museum of Victoria.

A working man and his family stand proudly in front of their neat cottage. They display all the requisites of respectability: a carefully laid out English garden, lace curtains at the window, and wife and children dressed in clean, if sometimes too small, clothes.

II

'Stipulate For A Stove': The Technological Challenge to the 'Cheerful Fireside'

Introduction

The cast iron cooking stove had a particularly important role in the interaction between technology and the consumer in the nineteenth century.[1] It was one of the first — and certainly the most complex — of the new technologies produced by the industrial revolution, and the only one to be 'built in' to the kitchen. Furthermore, it embodied what was increasingly regarded as *the* major task in home management, the preparation of meals. And by the mid-nineteenth century, this was not just the practical task of placing food on the table, but an activity that went to the heart of domestic life.

Only a century earlier, cooking stoves were unknown and cooking less important in domestic work than more obviously productive tasks such as spinning, weaving and dairying.[2] Simple, 'one pot' meals were prepared over an open fire, and if baking was done, it was in a brick oven. The equipment of Australian kitchens in the first decades of settlement was the same modest, portable, very basic and largely unchanged collection of tools as had been found in Europe since the twelfth century, when chimneys (and fireplaces set into the wall) had begun to replace a round hearth in the centre of a room.[3]

The change implicit in the introduction of the stove — with its closed oven and loss of sight of the fire — was far more significant than the need to incorporate a new piece of equipment. The hearth was the heart of the home, a meaning evident in the fact that 'hearth' is a metonym for home. The replacement of the open fire with such an obviously

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1 'Stove' initially referred to a heated room which acted as a hot-house or drying room; later it came to refer to an enclosed fireplace used for warmth and cooking. George MacLaren, *The Romance of the Heating Stove* (Halifax: Nova Scotia Museum, 1976), 2.

2 Fernand Braudel, *The Structures of Everyday Life: The Limits of the Possible, I* (New York: Harper & Row, 1985), 10.

3 *Ibid.*, 298, 299.

industrial product directly challenged the domestic ideal of the home as removed from industry, and the family as gathered harmoniously around the hearth. In the interaction between consumers' desires and manufacturers' advertisements, the ultimate success of the stove had less to do with the effectiveness of the technology, than with changes in the way householders constructed their ideals of the family, the home and domestic life.

1. From Open Fire to 'Uncle Sam'

The cooking traditions brought by European settlers to Australia were extremely simple and consisted primarily of boiling, baking and spit roasting. For such processes the major requirement was a large fireplace, which acted not as a single enclosed space with one fire but as a workplace in which a number of small fires could be built. Heat was controlled by simply changing the distance from the fire. Pots were suspended over it by chains, bars or cranes and could be moved up and down, sideways, backwards or forwards. On the floor of the fireplace, trivets enabled the cook to alter the heat and pans could be moved around or separate small fires lit beneath them. Baking was done in the ashes of the fire, in a portable earthenware oven or in an oven built into a side wall or corner of the fireplace. Spit roasting used the radiant heat from the fire with meat hung in front, suspended on a string or from a jack. Thus it was that the comparatively simple technology of burning wood in an enclosed space enabled, and encouraged, an almost infinite variety of temperatures and great flexibility in cooking (Plate 9).[4]

As cooking processes were simple, so were the tools required for them. James Atkinson's *Account of Grazing and Agriculture in New South Wales* (1826) summed up a colonists requirements: a bucket, an iron pot, a fry pan, a kettle, tin dish, plates, pannikins, a knife, a

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4 See Laurel Thatcher Ulrich, *Good Wives: Image and Reality in the Lives of Women in Northern New England, 1650-1750* (New York: Oxford University Press, 1983), 19-21; Caroline Davidson, *A Woman's Work in Never Done: A History of Housework in the British Isles, 1650-1950* (London: Chatto & Windus, 1983), 44-72; Stephen Mennell, *All Manners of Food: Eating and Taste in England and France from the Middle Ages to the Present* (Oxford: Basil Blackwell, 1986), 47-49.

steel mill for grinding, and a sieve for dressing coarse flour.[5] With these, colonists could readily prepare their typical diet for much of the nineteenth century — boiled meat, damper and tea — a diet that (with the exception of tea) had been largely unchanged in England since the seventeenth century.[6]

There was little variation in meals for different days of the week or even time of the day. As the author *of The Old Bark Hut* wrote:

> Ten Pounds of flour, ten pounds of beef, some sugar and some tea,
> That's all they give a hungry man until the seventh day.
> If you don't be mighty sparing, you'll go with a hungry gut —
> For that's one of the great misfortunes in an old bark hut.[7]

The meat was boiled in a pot suspended over the fire and damper provided the ideal solution to the problem of making bread without either yeast or oven. Consisting simply of flour and water mixed together (with later in the century baking soda added) it was baked in the hot coals. In judging the results, colonists differed: Alexander Harris described it as 'some of the most delicious and substantial bread I ever ate', whilst Mrs Meredith condemned it with the observation that 'those who eat it constantly must have an ostrich's digestion to combat its injurious effects.'[8] By the beginning of the nineteenth century, tea — once the province of the middle and upper-classes — was taken at every meal by everybody, 'and indeed all the day. In many huts the tea-pot is always on the fire; and if a stranger comes in the first thing he does is help himself to a pannikin of tea.'[9] Commissioner Bigge, remarking on the large quantities of tea drunk by colonists, regarded it as a measure of their prosperity.

Of course, in towns and more established regions, the availability of fresh fruit and vegetables made meals more sophisticated. In the first decades of settlement, Sydney residents could buy fruit and vegetables sent down from the Hawkesbury. When a new

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5 Robin Walker and Dave Roberts, *From Scarcity to Surfeit: A History of Food and Nutrition in New South Wales* (Sydney: University of New South Wales Press, 1988), 141.

6 The essential components of seventeenth century diet as described in English agricultural literature were: bread, boiled meat (enlivened by a sauce of available vegetables) and cider or beer, with the possible addition of a boiled pudding. Ulrich, *op. cit.*, 19.

7 Walker and Roberts, *op. cit.*, 141.

8 *Ibid.*, 21.

9 Mrs Kirkland, 'Life in the bush' quoted in *ibid.*, 25.

market was built in 1810 it was divided into four sections: the first for fruit in the summer months only; the second for meat, dairy produce, eggs, poultry, and fish; the third for potatoes; and the fourth for fruit and vegetables. Although, as this division indicates, potatoes formed the single largest item in most diets, even Sydney's working people could afford far more variety than had been possible in England.[10] In rural areas, a vegetable garden was a priority. Within six months of establishing a new settlement on the Swan River, William Tanner reported to his mother that they had begun to eat their own vegetables and had two sorts 'daily at table'.[11] However, such variety would only alter what was in the pot, not the way it was prepared, nor the number of courses offered.

The simplicity, and even drudgery, of these meals was not due to rudimentary technology, since the open fire was capable of producing far more sophisticated meals, but rather followed from a combination of limited supplies, the low status of cooking in the hierarchy of domestic work and an inherent conservatism about diet. Although pioneering settlers occupied land teeming with native flora and fauna, they were reluctant to experiment by eating any. It was only when colonists began producing cookbooks attuned to colonial conditions, that any encouragement was given to 'bush tucker'.[12] In the *Antipodean Cookery Book and Kitchen Companion* (1895), Wilhelmina Rawson wrote encouragingly:

> I would advise every housewife in the Bush to experiment and try everything; the blacks or her own common sense will soon tell her what is edible and what is not. There is a great amount of pleasure to be gained in trying new dishes with primitive materials. The Bush teems with animal life, and are we not told that the Almighty has placed it there for the benefit and sustenance of man?[13]

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10 Commissioner Bigge attributed the prevalence of dysentery to the abundance of cheap fruit, and at one stage peaches were so prevalent that they had to be used as pig food. *Ibid.*, 48, 49.

11 William Tanner to his mother, December 1831, in Pamela Statham (ed.), *The Tanner Letters: A Pioneer Saga of Swan River & Tasmania, 1831-1845* (Perth: University of Western Australia Press, 1981), 26.

12 Edward Abbott's *The English and Australian Cookery Book* (1864) was the first Australian cookbook and thus the first to use local game. However, although dedicated to 'the many as well as the upper ten thousand' the recipes are unmistakably those of the upper and middle-classes, and recipes for kangaroo, parrot, wallaby, wombat and black swan are for elaborate 'dinner party' meals rather than everyday eating. See 'An Australian Aristologist' [Edward Abbott], *Cookery for the Many, As Well As For the 'Upper Ten Thousand'* (London: Samson Low, Son & Marston, 1864). Edward Abbott was born in New South Wales in 1801, the son of Major Edward Abbott who, in 1815, moved to Hobart to become Deputy Judge-Advocate. Edward Abbott was his father's clerk before setting up as a grazier and, in 1839, founding the *Hobart Town Advertiser.* See Michael Symons, *One Continuous Picnic: A History of Eating in Australia* (Adelaide: Duck Press, 1982), 45-48.

13 Mrs Lance (Wilhelmina) Rawson, *The Antipodean Cookery Book and Kitchen Companion* (Melbourne: George Robertson & Co, 1895), 6.

However, it was unlikely that many of Mrs Rawson's readers ventured to eat the white wood grub (which the author compared to an oyster), grasshoppers ('very good when poached'), or iguana ('as nice a dish as I would wish').[14]

When it came to diet, colonists — like their English counterparts — were generally content with the limited options available to them. Even when cookbooks written specifically for a local audience became available, most of their recipes were for traditional British foods prepared in traditional British ways. The incentive to move away from cooking over an open fire did not come from any belief that a stove would enable the housewife to prepare a more varied diet. Rather, it was in response to the fact that although fireplaces were effective, naked flames were dangerous, and accidents, an almost daily occurrence. The heat of the open fire made kitchens unbearably hot in summer and dust, ashes and smoke were an ever present nuisance. And, as Annie Baxter's vivid description reveals, roasting meat in front of an open fire was a doubtful pleasure:

> In the bush, we have immense fireplaces .... I remember one day we had a large piece of beef roasting — the chimney smoked furiously — and we were putting up with this, for the sake of a fresh morsel of beef! The old man who was turning it, kept on running out every now & then to breathe the fresh air — altogether it was enviable — when in came three visitors, one of them a lady — I do suppose she thought I cried with delight to see her — for my eyes were full of tears from the smoke![15]

Finally, the cast iron pots, frying pans, boilers and kettles were heavy and difficult to manoeuvre.

However, the prime cause of the demise of the Australian open fireplace was its extraordinary impracticality. Generally built to measure six feet wide by three feet deep, colonial fireplaces consumed huge quantities of wood extremely inefficiently.[16] It was not uncommon for the fireplace to occupy an entire wall.[17] C.J. Baker described them as 'somewhat of the make and dimensions of those in which our forefathers were accustomed

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14 *Ibid.*, 9.

15 Annie Baxter to Henrietta, April 1840, in Lucy Frost (ed.), *No Place for a Nervous Lady: Voices from the Australian Bush* (Fitzroy: McPhee Gribble, 1984), 92.

16 Margaret Hindle Hazen and Robert M. Hazen, *Keepers of the Flame: The Role of Fire in American Culture, 1775-1925* (Princeton: Princeton University Press, 1992), 170.

17 Terence Lane & Jessie Serle, *Australians at Home: A Documentary History of Australian Domestic Interiors from 1788 to 1914* (Melbourne: Oxford University Press, 1992), 18.

to sit, affording ample space for smoking hams and bacon and for the convenient suspension of every description of culinary vessel.'[18] Charles Archer's watercolour of a squatter taking it easy shows him relaxing beside a fireplace of sufficient size to enable stone benches to be built inside (Plate 10).

Such generous fireplaces were the product of ample supplies of wood. In New England in the United States, it was estimated that, by the late eighteenth century, the typical household burnt thirty to forty cords of wood a year, an amount that consumed an acre of trees. Although the milder climate of Australia undoubtedly meant less wood was used, the need to keep at least one fire going all day must have consumed a fair amount. Furthermore, when this was burnt in an open fireplace, only twelve to fourteen per cent of the heat entered the room, and most went up the chimney.[19] There was thus a direct relationship between the increasing 'acceptability' of the cooking stove and the price of firewood. This is evident in the history of its introduction in Britain and the United States and also accounts for its slower acceptance in colonial Australia. For, even in the United States, firewood was becoming more expensive by the mid-nineteenth century.[20] However, in colonial Australia it would not be until the century's last decades that the spread of urban development and increase of population concentration in the major towns began to affect the price of wood. Graeme Davidson has shown that, unlike major cities in Europe and America, wood remained the major domestic fuel in all but one Australian capital (Sydney). This fact was noted by British and American manufacturers of stoves who, in exporting to Australia, had to pay 'great attention' to adapting their products to 'the fuel most commonly in use (wood) as well as to the economy of fuel'.[21]

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18 C.J. Baker, *Sydney and Melbourne* (1845) quoted in *ibid.*, 20.

19 *Ibid.*, 19.

20 Priscilla Joan Brewer, Home Fires: Cultural Responses to the Introduction of the Cookstove, 1850-1900 (Unpublished PhD Dissertation, Brown University, 1987), 19, 20. See also Patricia Brewer, ' "We have got a very good cooking stove": Advertising, Design and Consumer Response to the Cookstove, 1815-1880', *Winterthur Portfolio,* 25(1),(1990), 35-54.

21 *Intercolonial Exhibition of Australasia, Melbourne, 1866-67: Official Record* (Melbourne: Blundell & Co, 1867), 328.

The enormous quantities of wood available led to a carelessness that shocked many a new emigrant. Mrs Millett, recently settled in Western Australia, wrote in 1872:

> The quantities of dead trees scattered all over the bush are enormous and when allowed, as is sometimes the case, to lie on the ground near a habitation of the better class, they are very disfiguring to an English eye.[22]

At 'Home' such quantities of wood would quickly have been reduced to a neatly stacked pile. In towns and cities, wood was more valued than in the country since it had to be paid for. Alfred Stone, a Perth magistrate, noted in the 1850s that the town's increasing population was exhausting local supplies of timber and causing the price of firewood to rise. He was fortunate to have a block of land that could be cleared to supply his needs, and wrote that he had struck a deal with a man, 'who agreed to cut firewood for me at 3s. a cord. Spencer is to cart it in and stack it.'[23] As a photograph taken by him some years later reveals, Stone appreciated a well stacked wood pile (Plate 11). Exactly how much wood Australians consumed is unknown, although the size of the pile in Stone's photograph gives some indication. John Todd has calculated that the late nineteenth century Tasmanian household used forty-two tonnes a year, but consumption would have been substantially less in colonies with warmer climates.[24] In general, however, it was only in the last decades of the late nineteenth century that anxieties arose about firewood shortages and exhaustion of the forests. Significantly, it was at this time that stove manufacturers began to promote the 'economy' of their products. Thus, a 1906 advertisement for the 'Sam Weller' claimed that it used seventy-five per cent less fuel than any other stove;[25] and an advertisement for the Younger stove pointed to the fact that it would soon 'pay for itself' since it used only two and a half tons of coal a year.[26]

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22 Mrs Edward Millett, *An Australian Parsonage or, the Settler and the Savage in Western Australia* (1872)(Nedlands: University of Western Australia Press, 1980), 95.

23 Stone also records that firewood at the time was selling for eleven shillings a cord. 20 October 1852, Diary of Alfred H. Stone, Battye Library MS., State Library of Western Australia.

24 Quoted in Graeme Davison, 'The Australian Energy System in 1888', *Australia 1888,* No. 10 (1982), 3-37 at 22.

25 *Lassetter's Complete General Catalogue* (Sydney: Lassetter's, 1906), 181.

26 *Agricultural Society of New South Wales Intercolonial Exhibition 1869: Catalogue* (Sydney: Gibbs, Shallard & Co, 1869), Advertising Supplement, np. This appears to have been a particularly economical stove. An 1879 testimonial for the Eagle Range stated that it used 'only' four tons of coal a year. *The Gold Medal Eagle Ranges Catalogue* (Birmingham: Hudson & Son, 1910), np.

Lavish displays of stoves were a feature of agricultural shows, intercolonial exhibitions and, later, the International Exhibitions.[27] Caroline Dall commented on the rows of kitchen ranges and stoves on display at the 1876 Philadelphia Exhibition, 'looking so convenient that I wanted to build a fire on the spot.'[28] However, they did not always attract the praise of the judges. In ranking contributions to the 1851 Exhibition, jurors complained that too little attention was given to making ranges cheap to buy and economical to run: 'The most extravagant domestic apparatus is the ordinary kitchen range, the quantity of non-effective coal consumed being enormous.'[29]

Shortages of wood — and thus high prices — were experienced differently according to the location of settlement, which explains the great differences in 'take up' of the cast iron stove in Australia. For whilst some women were cooking on the latest American and British stoves before the 1850s, others continued to use an open fire until well into the twentieth century (Plate 12). But there was another major factor, which meant that even in towns such as Sydney, where high fuel prices made cast iron stoves desirable, their use was far from universal. In reality, the introduction of new technologies into the process of food preparation was far more complex, and was closely linked to new ideas about the importance of the 'fireside pleasures of domestic life'. So whilst the need to reduce fuel consumption was a catalyst to move away from traditional cooking practices, the ultimate abandonment of the open fire required far more than a simple desire for economy

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27 See, for example, *Report of the Royal Commission for the Melbourne Centennial International Exhibition of 1888 for the Queen's Most Excellent Majesty* (London: Eyre & Spottiswoode, 1889), 237.

28 *Letter IX, Letters from Mrs Dall to the Editor of the New Age, Philadelphia, 1876* (June 1876). Newsclippings, Hagley Library and Museum, Wilmington. (Mrs) Caroline Wells Healy Dall (1822-1912), author and reformer, wrote a series of letters to *The New Age* from the 1876 Exhibition. These often irreverent letters provide a frank picture of the Exhibition and its exhibits, describing the Women's Building as 'the most mortifying spot I ever set foot within' and advising her female readers: 'Dress in a plain and simple way, which will stand dust and rain. If you have no dress that is of equal lengths on all sides, stay at home till you have made one.' *Letter I, ibid.*, np. See 'Caroline Wells Healy Dall', in Allen Johnson & James Malone (eds), *Dictionary of American Biography*, 5 (New York: Scribner's Sons, 1930), 35.

29 *Exhibition of the Works of Industry of all Nation: Reports by the Jurors, I*(London: William Clowers & Sons, 1852), 649.

Indeed, an analysis of the introduction and dissemination of cooking stoves in Australia clearly indicates that consumers did not just move from one technology to another. Contrary to what writers like Siegfried Giedion, Beverley Kingston and Kerreen Reiger have suggested, the introduction of the cast iron cooking stove was not simply the story of the replacement of one technology by another. It was not the smooth linear progression implied in Giedion's comment that the history of the kitchen:

> as we know it today is largely bound up with the growing concentration of its heat sources. The open flame of the hearth, coal within the cast-iron range, gas, and finally electricity followed one another as the heating agents.[30]

In the end, it was a process of acceptance and rejection, with manufacturer and retailer jockeying for position in a market where cost saving and fuel efficiency were only two considerations.

2. The 'Cheerful Fireside' and the Cookery Book

The enchantment of the fireside provided a recurrent image of domestic harmony throughout the nineteenth century. Ada Cambridge wrote of 'The glorious log fire of the country — the most beautiful piece of house furniture in the world.'[31] Charles Archer's watercolour of 'a squatter taking it easy' is typical of the genre (Plate 10).[32] Even when rooms were painted without people in them, such as Emma von Steiglitz's watercolour of a squatter's hut, a fire blazes in the hearth.[33] The alternative of an empty fireplace would be taken to represent dire poverty, desolation or even death.[34] The 1860 enquiry into working-class housing in Sydney equated it to destitution, one witness describing a particularly poor

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30 Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (1948) (New York: W.W. Norton & Co., 1975), 527-547.

31 Ada Cambridge, *Thirty Years in Australia* (1903)(Kensington: University of New South Wales Press, 1989), 28.

32 Charles Archer, 'A Room in Woroongundi, A Squatter Taking it Easy', c. 1847, Lane & Serle, *op. cit.*, 79.

33 Emma von Steiglitz, 'Interior of a Squatter's Hut at Port Phillip, 1841', *ibid.*, 64, 65.

34 The Hazens point out that in nineteenth century literature the fireless grate was used to represent terrible suffering and cites the example of the Hummels in Louisa May Alcott's *Little Women.* Hazen, *op. cit.*, 107.

house as having 'not a spark of fire in the place'.[35] As a result, the desire for the open fire persisted, long after the technological necessity for it had gone. An American woman's magazine expressed the reasons for this in 1916:

> Some one has said that you can paint a family group around a fireplace, but not around a steam radiator. The hearth is a natural gathering place where children watch the pictures in the leaping flame ...[and where mother says] the quiet true things which are never forgotten.[36]

Or as Harriet Beecher Stowe expressed it more patriotically in 1865:

> Would our revolutionary fathers have gone barefooted and bleeding over snows to defend air-tight stoves and cooking-ranges? I trow not. It was the memory of the great open kitchen fire ... that called to them through the snows.[37]

The move of the home away from a total dependence on the naked flame — through developments in lighting, heating and cooking technologies — only served to increase the importance of the hearth. The strength of the ideal is evidenced by its ready transfer to Australia, despite the considerably milder climate. Writing in her diary in 1859, Sarah Midgley commented:

> The mason pulled down the old chimney to make way for a more substantial one. I hope there will be many a happy gathering around a new fireplace as there has been around the old one, shabby though it was.[38]

However, in the course of the nineteenth century two important changes overtook this romantic ideal. First, the image of the family sitting in front of a cheerful fire was gradually replaced by a more formal portrait of them gathered around the table. Whereas dining in the eighteenth century had been an informal activity which often took place outside the home, by the early decades of the nineteenth century it was becoming far more ritualised, and as such a symbol of family life.[39] Kenneth Ames has suggested that dinner in middle-class Victorian America became a ritual of bonding where people were united by eating the

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35 Evidence of Mr Samuel Worthington Mansfield, Master of the Sydney Benevolent Asylum, *New South Wales Parliamentary Papers, Legislative Assembly: Report from the Select Committee on the Condition of the Working-Classes of the Metropolis* (Sydney: Government Printer, 1860) 1263-1465, 1434.

36 Quoted in Hazen, *op.cit.*, 221.

37 Harriet Beecher Stowe, *House and Home Papers* (1865) quoted in Brewer, Home Fires, *op. cit.*, 181.

38 Sarah Midgley's Diary, 18 April 1859, in Frost (ed.), *op. cit.*, 77.

39 This is discussed in greater detail in Chapter IV. See also Susan Williams (ed.), *Savory Suppers and Fashionable Feasts: Dining in Victorian America* (New York: Pantheon, 1984); Kathryn Grover (ed.), *Dining in America, 1850-1900* (Amherst: University of Massachusetts Press, 1987).

same food off matching dishes with matching silverware and glasses.[40] A similar pattern could be found in middle-class Australia. Harriet Neville-Rolfe's 1884 paintings of her sister's household on a remote Queensland station provide a record of the lengths households went to preserve what by then had become the necessities of respectable middle-class life: starched white tablecloths, matching serving dishes and plates, fresh flowers on the table, animal prints on the wall. Although seated in a room with rough wood walls and an unlined ceiling, the family nonetheless ate in a manner that would not be out of place in the most fashionable Sydney town house (Plate 13).[41]

Secondly, although meals were comparatively simple throughout this period, the preparation of food took on a new importance and, increasingly, was regarded as central to women's role in the home, and the essential ingredient of a happy marriage. This was reflected in the rising importance of domestic advice literature, and particularly of cookbooks.[42] Auction notices from the 1840s reveal that works such as Mrs Rundell's *Domestic Cookery*,[43] *Lady's Own Cookery*,[44] *Johnson's Cookery* and *The Practical Cook*[45]

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40 Kenneth Ames, *Death in the Dining Room & Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992), 76-77.

41 Harriet Neville-Rolfe, 'Breakfast, Alpha 1884', Serle & Lane, *op. cit.*, 186. Kenneth Ames points to the significance of images of death in the dining room and analyses the application of carvings of dead animals on sideboards, in still life, and in mounted animal heads. He argues that Victorians consciously chose to dine in 'the presence of a rich and intricate nonverbal text that spoke of the struggle for existence and the subordination of groups to other groups ... of order, hierarchy, domination, and survival ... of the inescapable truth that some must die for others to live.' It is interesting to note that in the Rolfe painting the rear wall was adorned with Hereford antlers, guns and a framed horse manual. Ames, *op. cit.*, 77.

42 For a history of advice literature see Barbara Ehrenreich and Deidre English, *For Her Own Good: 150 Years of Experts' Advice to Women* (Garden City: Anchor Books, 1979); John F. Kasson, *Rudeness & Civility: Manners in Nineteenth-Century Urban America* (New York: Hill and King, 1990). For a bibliography of Australian cookbooks see Bette Austin, *A Bibliography of Australian Cookery Books Published Prior to 1941* (Melbourne: RMIT, 1987); Bette Austin, 'Bibliography of Australian Cookery Books', in Barbara Santich and Michael Symons (eds), *Proceedings of the Third Symposium of Australian Gastronomy: A Multicultural Society, Melbourne, March 8-10 1987* (Adelaide: The Symposium, 1988), 169-174. For attitudes of Australian women to reading cookbooks see Martyn Lyons and Lucy Taksa, ' "If Mother Caught Us Reading ...!": Impressions of the Australian Woman Reader, 1890-1933', *Australian Cultural History: Books, Readers, Reading*, No. 11(1992), 29-39; Martyn Lyons and Lucy Taksa, *Australian Readers Remember: An Oral History of Reading, 1890-1930* (Melbourne: Oxford University Press, 1992), 104-108.

43 Mrs Maria Rundell, *A New System of Domestic Cookery: Formed upon Principles of Economy and Adapted for the Use of Private Families* was one of the first cookbooks to become commercially successful. It was published in 1806 and reprinted throughout the nineteenth century. Samuel Lyons was one of many Sydney residents who had a copy. *Catalogue of Elegant Modern Household Furniture: Property of Mr Samuel Lyons* (Sydney: R. Howe, 1836), 15. In 1848, J.G. Cohen listed 15 copies of Mrs Rundell in his auction of 'new books'. *Catalogue of 800 volumes of New Books* (Sydney: Kemp and Fairfax, 1848), 8, 9. For a history of the

were popular in the colony. The first cookbook to be published for a specifically Australian audience, albeit a middle-class one, was Edward Abbott's *The English and Australian Cookery Book* (1864). Within a decade an enormous outpouring of cookbooks written by Australian women brought them within the reach of all. The publication of Mrs Lance (Wilhelmina) Rawson's *Cookery Book and Household Hints* in 1878 was followed by an 'Old Housekeeper's' *Australian Housewive's Manual* (1883), A 'Practical Cook's' *Australian Plain Cookery* (1883), Mrs Harriet Wicken's *Kingswood Cookery Book* (1885), and Margaret Pearson's, *Cookery Recipes for the People* (1888).[46] As Mrs Rawson wrote in the preface to her *Cookery Book and Household Hints* (1886):

> In having this little book of receipts printed I hope that I am helping many young and inexperienced housewives. Almost every young matron has among her wedding presents a good Cookery book, either Mrs Beeton, Warne or some other equally good and useful for town use, but which, in the bush or country, owing to the scant material to work with, becomes nearly useless.[47]

Although no sales figures survive, some indication of the popularity of the cookbook can be drawn from the number of editions these books went into. By the early 1900s, the *Kingswood Cookery Book* had run to six editions, with 30,000 copies sold. Mrs Theo P. Winning stated in the preface to the second edition of *The Household Manual* (1899) that the first had sold out in six months.[48] The title page of the seventh edition of *A Friend in the Kitchen* claimed that 63,000 copies had been sold. *The Presbyterian Cookery Book* went into six editions between 1895 and 1902, selling 30,000 copies and claiming, 'it is significant that many discerning women have made it a habit to give a copy ... to every new

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cookbook see Eric Quayle, *Old Cook Books: An Illustrated History* (New York: Brandywine Press Book, 1978).

44 *Henry G. Bohn, Covent Garden: New Valuable and Most Important Books* (Sydney, 1848), 18. *Lady's Own Cookery* was first published in 1840, the title page stated that it was 'adapted to the use of Persons Living in the Highest Style, as well as those of Moderate Fortune'. See Quayle, *op. cit.*, 165, 166.

45 *Catalogue of New and Beautifully Bound Illustrated Books* (Sydney, 1848), 6.

46 This growth continued and in the 1890s Mrs Rawson published *Refer to Me* (1894) and *The Antipodean Cookery Book and Kitchen Companion* (1895) and re-issued her 1878 *Queensland Cookery and Poultry Book* (1894). Philip Muskett brought out *The Art of Living in Australia* (1893), Mrs H.J. Samuel, *The Household Cookery Book* (1894), Mrs Theo P. Winning, *The Household Manual* (1899), Anna Colcord, *A Friend in the Kitchen* (1902) and in 1894 the first edition of *The Presbyterian Cookery Book* appeared. See Austin, *A Bibliography, op. cit.*

47 Mrs Lance Rawson, *Cookery Book and Household Hints* (1878)(Rockhampton: William Hopkins, 1886), iii.

48 Mrs Theo P. Winning, *The Household Manual: A Complete Household Repository of Useful Information* (Sydney: Kealy & Philip, [1899]), i.

bride of their acquaintance.'[49] Martyn Lyons' and Lucy Taksa's research on Australian reading has shown that the cookbook was the commonest source of household advice across all social classes.[50]

The success of the cookbook is a clear indication of the new importance of cooking in family life. Indeed, reading nineteenth century domestic guides, it is surprising how often reference was made to the close links between a well fed man and a happy home. The underlying implication was that food was far more reliable than sex as a satisfier of men's appetites, and what was more important, cooking could be learnt. As Wilhelmina Rawson advised in *The Antipodean Cookery Book* (1895):

> Man must be cooked for. He'll do without shirt-buttons, and he'll do without his slippers, but he will not do without his dinner .... The husband is a creature of appetite, believe me, and not to be approached upon any important matter, such as a new bonnet or a silk dress, on an empty stomach.[51]

Or, as the author of *Men and How to Manage Them* (1885) put it more bluntly:

> No man grumbles after a good dinner, and, provided that he does not suspect that his pet dishes have been furnished to further some design upon him ... he can be moulded like wet putty when dinner is over, and he wants to expand himself. This is the time to let him go, and if you are wise he will go your way. I know a woman who used to get all she wanted out of her husband by merely sitting near him after dinner and peeling walnuts for him, a feat she performed very neatly, and with much patience, finding herself, as she used to say, very well paid for it.[52]

This link between the happy husband and good cooking was not confined to the realms of domestic advice literature. Novelists, short story writers and journalists never tired of contrasting the disorganised and unhappy home with the cheerful and industrious one.[53] Whilst suitors might have appreciated music, painting and other ladylike accomplishments

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49 *The Presbyterian Cookery Book of Good and Tried Receipts* (Sydney: Angus & Robertson, 1922), np.

50 There was however a class distinction in perceived use of the cookbook. Whilst middle-class respondents recalled their mothers' use of cookbooks with pride, working class respondents, although acknowledging the presence of cookbooks, attributed their mothers' success to innate knowledge. As Pearl K., the daughter of a fruiterer, recalled, 'Yes, mum was a good cook, but she wasn't one that would sit down and read recipes. She *knew* it.' Lyons and Taksa, *Australian Readers Remember, op. cit.*, 106, 107.

51 Rawson, *op. cit.*, 5.

52 'An Old Housekeeper', *Men and How to Manage Them: A Book for Australian Wives and Mothers* (Melbourne: A. H. Massina & Co, 1885), 22. Despite considerable attempts I have been unable to identify the author of this extraordinarily useful little volume. 'An Old Housekeeper' also wrote *The Australian Housewives Manual* (1885) and was a contributor to at least one of Melbourne's women's periodicals.

53 See, for example, 'Housekeeping', *Castner's Rural Australian*, 1 February 1877, 17.

when they were courting, when it came to marriage it was essential that the object of their affection had learnt to keep house:

> Now your Adonis loves sweet moonlight walks
> Hand clasps and kisses and nice little talks.
> Then, as plain Charley, with his burden of care,
> He must subsist on more nourishing fare:
> He will come home at the set of the sun
> Heart sick and weary, his working day done;
> Thence let his slippered feet ne'er wish to roam,
> Learn to keep house that you may keep him at home.[54]

Castner's Monthly Australian did not mince words. If women wished to preserve their financial and emotional security they should ensure that their households were well run and their meals worth coming home to.

This new importance attached to homemaking and meals in Australian family life worked both for and against the cast iron stove. On the one hand, more formal eating rituals meant that in middle-class and even working-class homes, three course dinners were not uncommon. In *Kingswood Cookery,* Mrs Wicken outlined a week's meals for a family with housekeeping of five pounds a week. A typical dinner consisted of '*Pot au feu,* Meat from *pot au feu* and tomato sauce, seasonal vegetables, Apple tart and Macaroni cheese'.[55] Even in households with far less to spend, some attempt at separate courses was made. 'An Old Housekeeper' recommended as a 'dinner for a shilling', 'Stewed steak, Mashed potatoes and Rice pudding'.[56] Of course, cookbooks often represented the ideal, rather than reality. Nonetheless, it is apparent from contemporary accounts that by the last decades of the nineteenth century, women were preparing more complex meals. Menie Thom's household stood somewhere between those described by Mrs Wicken and 'An Old Housekeeper': middle-class but with limited financial resources. She took great pride in her housekeeping and wrote to her mother describing one of her 'little dinners':

> I had a nice bit of salt mutton, salted by myself, white kidney potatoes, cauliflower & turnips — all out of our own garden .... Then I had a great dish of red cherries, so pretty .... I had a nice little roll pudding made out of apple jam that I made myself. Now, is that not splendid.[57]

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54 'Learn to keep house', *Castner's Rural Australian* , February 1877, 12.

55 Harriet F. Wicken, *The Kingswood Cookery Book* (1885)(Melbourne: Whitcombe and Tombs, [1910]), 12.

56 'An Old Housekeeper', *op. cit.,* 52, 53

57 Menie Thom to her mother, 25 November 1869 in A.W. Martin (ed.), *Letters from Menie: Sir Henry Parkes and His Daughter* (Melbourne: Melbourne University Press, 1983), 84.

By this time, other factors had come into play which ultimately would challenge the cultural significance of the open fire. A cast iron stove that allowed food to be cooked on top of the stove while pastries and other dishes were baking inside facilitated preparation of these more elaborate meals. However, against this had to be measured the Australian household's conservative approach to food, which only increased as meal preparation became the major domestic task. Traditionally, a man's favourite dinner was roast meat, and, as even professional home economists like Mrs Wicken were forced to admit, meat could only be 'properly' cooked in front of an open fire.[58] The real debate over the introduction of the cast iron stove therefore was not about time or labour-saving, or about cost-saving through greater efficiency, but about how this new technology could accommodate traditional work practices and traditional values.

3. 'Cooking Stoves in Great Variety': Romancing the Cast Iron Stove

The successful introduction of new technology into an area that had remained unchanged for over three centuries entailed considerable risk both for manufacturer and consumer. For it threatened the heart of domestic life at the very time when that was becoming increasingly important to wider sections of the community. The fact that the cast iron cooking stove met with some success is indicative of the nineteenth century home's ability to accept and adapt to innovations. However, the degree to which the technology itself had to change in order to be accommodated into the home also reveals the strength of the ideal of domestic life and its ability to romance the machine.

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58 'Roasting before an open fire is, no doubt, the finest way of cooking prime joints of beef, mutton, lamb, pork and veal.' Mrs Harriet Wicken, *The Australian Home: A Handbook of Domestic Economy* (Sydney: Edwards, Dunlop & Co., 1891), 47. See also 'A Practical Cook', *Australian Plain Cookery* (Melbourne: A.H. Massina & Co, [1891]), 48.

Before looking at the means used to adapt stoves for the marketplace, it is necessary to understand the history of the stove industry.[59] The *Official Report of the Intercolonial Exhibition of 1870* described its condition by the last quarter of the nineteenth century:

> Register grates for sitting rooms are all imported, but for kitchen use Colonial stoves are often preferred, except in large houses, where imported ranges are adopted. A good many American stoves are imported, and they are found to be light and handy, but they are not so durable as those of colonial make and are not so economical in fuel. Scotch stoves, made on the American pattern, and with improvements — are largely imported.[60]

This situation — a market dominated by imports but with some local manufactures — prevailed throughout the nineteenth century and into the twentieth. The initial lead taken by British and American stove manufacturers could not be overtaken. Although such bulky and heavy items were expensive to ship, the resultant advantage to local manufacturers was outstripped by the cost of imported pig iron.[61] Raw materials were more expensive and they had to compete in a small market which demanded an increasingly sophisticated product.

However, despite these difficulties, local stove manufacture was underway by at least the 1840s. Encouragement was given through schemes such as that in Victoria which, in 1866, awarded £25 to W. Hutchinson of Melbourne for patent colonial ovens that the board judged 'fully equal to those imported'.[62] A reporter at the 1887 Adelaide International exhibition pointed out that stove manufacture was among the more successful areas of the

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59 For a history of cooking stoves in Britain see Christina Hardyment, *From Mangle to Microwave: The Mechanization of Household Work* (Cambridge: Polity Press, 1988), 113-136; Alison Ravetz, 'The Victorian Coal Kitchen and Its Reformers', *Victorian Studies,* XI (4),(1968), 435-458. For the United States see Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982), 32-49; Brewer, Home Fires, *op. cit.*; Brewer, ' "We Have Got a Very Good Cooking Stove"', *op. cit.* See also Ruth Schwartz Cowan, 'The Consumption Junction: A Proposal for Research Strategies in the Sociology of Technology' in Wiebe Bijker, Thomas Hughes and Trevor Pinch (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, Mass.: MIT Press, 1987), 261-280.

60 *The Industrial Progress of New South Wales: Being the Official Report of the Intercolonial Exhibition of 1870, at Sydney* (Sydney: Thomas Richards, 1871), 352.

61 For a detailed history of the iron industry in Australia see G.J.R. Linge, *Industrial Awakening: A Geography of Australian Manufacturing, 1788 to 1890* (Canberra: Australian National University Press, 1979), 348, 560 ff; Ian Jack, 'The Iron and Steel Industry' in Judy Birmingham, Ian Jack and Dennis Jeans, *Australian Pioneer Technology: Sites and Relics* (Richmond: Heinemann Educational Australia, 1979), 87-98. For a discussion of the British iron industry and the trade in pig iron see David S. Landes, *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present* (Cambridge: Cambridge University Press, 1969), 84 ff.

62 *New Manufactures and Industries: Report of the Board Appointed by the Governor in Council to Consider Claims for Rewards or Premiums, 1866* (Melbourne: Government Printer, 1866), 12.

colonial hardware trade.[63] The development of the cupola furnace allowed for the smelting of iron on a much smaller scale than had previously been possible. Instead of being located in industrial sites, ironfounders could thus set up business where their markets were. 'A. Gravely of Pitt Street, Sydney', was just such an ironfounder, and produced a range of stoves, including the 'California', the 'Cottage' and the 'Albert'. A 'Gravely' stove was among the auction contents of the household of Rev. Bodenham in 1848.[64] Gravely was still producing stoves ten years later, advertising in the first issue of *Sand's Sydney and Suburban Directory*. By then, ten iron founders were in business in Sydney, including Bubb & Son's whose Victoria Foundry was located in Sussex Street and employed 65 hands:

> [carrying out] casting for housework generally, executing orders for builders or large contractors. In this they do a very large business [12 tons a week], manufacturing pilasters, ornamental columns, balcony railing, wrought and cast iron palisading, and every description of iron work used in house-building.[65]

Although this foundry was larger than most of those listed in *Sands*, the range of work Bubb & Son carried out was typical and stove casting would have been an essential part of it. By that time, stove makers were listed separately to iron founders and three specialised in this work: Fletcher Brothers, Richard Slee and Charles Younger.[66] Surviving advertisements reveal that they manufactured what by then had become standard cast iron stoves. In 1863, Younger 'called attention' to their:

> economical COOKING APPARATUS constructed on the most approved principle, for durability and efficiency; WARRANTED TO BAKE BREAD; suitable for Coal or Wood. For the Country they are allowed to be the best article every produced. In sizes from 2 feet to 2 feet 9 inches on the plate, with one oven; and 3 feet 4 inches to 5 feet with two ovens.
>
> Testimonials may be seen at their Manufactory.[67]

However, the small size of colonial iron works and their limited output meant that, unlike foundries in Britain and America, they were not characterised by innovative product development. Although Gravely's advertising proclaimed their newly patented designs, no registration of patents issued to this company appears in the *New South Wales Patent Register*. Altogether, only eighteen patents related to cooking stoves and ranges were listed

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63 *Australasian Ironmonger*, II (8),(1 August 1887), 201.

64 *Catalogue of Elegant Household Furniture: At the Residence of the Rev. Mr Bodenham, Black's Building, Castlereagh St. North* (Sydney: Kemp and Fairfax, [1848]), 8.

65 Quoted in Linge, *op. cit.*, 418.

66 *Sands' Sydney Directory for 1869* (Sydney: John Sands, 1869), 453.

67 *Sands' Commerical and General Sydney Directory for 1863* (Sydney: John Sands, 1863), Advertising Supplement, 73.

in New South Wales between 1854 and 1892. By contrast, 2.5 per cent of all patents issued in the United States in the years 1820 to 1849 were for stoves and stove attachments.[68]

Indeed some stove manufacturers made much of the fact that their designs were not innovative at all, but rather blatant copies of (evidently superior) English designs. In 1879, Fletcher Brothers advertised their stoves with the assertion that they were 'directly copied from the English patterns'.[69] Such copying was a persistent problem and, of course, all too easy with cast iron. Imported stoves could be disassembled and moulds made from each plate. The invoices of American stove manufacturers frequently contained warnings such as that from the National Stove Works:

> All Goods sold by us are for use as manufactured articles, and must not be used as patterns to cast others from, without our consent.[70]

Local manufacturers did have some advantages, particularly in their knowledge of local conditions. Indeed the official report from the 1870 Intercolonial Exhibition in Sydney suggested that colonial stoves were 'often preferred':

> A good many American stoves are imported, but they are not so durable as those of colonial make, and are not so economical in fuel. In the country, where wood is burnt, stoves are wanted that do not require the fuel to be cut very small, and the Colonial ovens are adapted to this state of things. [71]

Nonetheless, the small number of ironfounders and the limited size of their output meant that most stoves bought in New South Wales were imported from England, Scotland and the United States. However, the actual size of this trade is difficult to estimate. Reliable statistics were not available until 1858 when the first *Statistical Register for New South Wales* opened. Until then, according to the government statistician, records were kept in a 'loose, perfunctory and unmethodical manner ... with values arbitrarily fixed and ... often

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68 Between 1790 and 1819 it was 0.9 per cent rising to 3.5 per cent by the 1830s. Brewer, Home Fires, *op. cit.*, 44. *New South Wales Indexes to Patents 1854-1891* (Sydney: Government Printer, 1892), 272; III, 1868 (1870); *Index to New South Wales Letters Patent Registered 1 August 1887-31 December 1891* (Sydney: Government Printer, 1894), 358-361. A similar situation prevailed in Victoria. See *Patents and Patentees, 1854-1866,* I (Melbourne: Government Printer, 1868), 20-23; *Patents and Patentees, 1885,* XX (Melbourne: Government Printer, 1891), 32, 144; *Patents and Patentees, 1887,* XXII (Melbourne: Government Printer, 1892), 17, 89, 177, 197; *Patents and Patentees, 1889,* XXIV (Melbourne: Government Printer, 1894), 170.

69 *Sydney International Exhibition: The Manufacturing Industries of New South Wales, Part 1: Ironworks and Carriage Manufactories* (Sydney: Foster & Fairfax, 1879), 19.

70 *National Stove Works: Receipt, 20 October 1866,* Warshaw Collection of Business Americana, Smithsonian Institution.

71 *The Industrial Progress of New South Wales: Being a Report of the Intercolonial Exhibition of 1870, at Sydney* (Sydney: Thomas Richards, 1871), 352, 353.

without any regard to the real value of the articles and commodities.'[72] At this distance it is therefore impossible to know how many stoves were imported each year, of what type, and from where. Stoves were not separately listed in the returns and any consideration of the size of the trade must be drawn from what information is available generally about hardware and ironmongery.[73]

A very approximate estimate of the ratio of local manufactures to imports can be calculated based on the proportion of ironfounders to ironmongers. Throughout the second half of the nineteenth century ironmongers outnumbered ironfounders by at least three to one, and at times as much as eight to one.[74] The ironmongery trade in New South Wales was therefore substantial, second only in value of imports to drapery and apparel. In 1851, ironmongery and hardware accounted for £247,661 of imports, of which 91 per cent came from Britain, five per cent from the other Australian colonies and three per cent from the United States. Over the next decade, America doubled its trade with New South Wales, and by 1869 accounted for ten per cent of all hardware imports. Furthermore, these increases in hardware imports outpaced population growth. In *The Wealth and Progress of New South Wales*, T.A. Coghlan calculated that hardware consumption increased by

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72 *Statistical Register of New South Wales from 1849 to 1858: Compiled from Official Returns in the Registrar General's Office* (Sydney: Government Printer, 1859), 18.

73 To add to the difficulty 'ironmongery' literally does mean products of iron and thus encompasses an enormous range of material. One of the best definitions of what was meant by this term can be found in the catalogue to the 1851 Crystal Palace exhibition. Organisers had gone to great lengths with classification and included under Ironmongery: anvils, vices, baths, bedsteads, bellows, bells, bird-cages, brass foundry, bronzes, buttons, chandeliers, copying machines, enamelled and tin ware, filters, gas meters and stoves, grates, fenders and cooking apparatus, hardware, horse shoes, japanned ware, jews' harps, knife cleaning machines, lamps, letter boxes, locks, monumental brasses, nails, needles, ovens, percussion caps, pewter, powder flasks, safes, screens, steel pens, steel wares, tea kettles, tubing, water closets, wire gauge and zinc castings. *Exhibition of the Works of Industry, op. cit.*, 1081-1086.

74 This is based on the numbers listed in *Sands' Directories* for this period. In the few years that stove manufacturers were distinguished from ironfounders the numbers were tiny (three in 1869, two in 1875) making the ratio even greater. *Sands and Kenny's Commercial and General Sydney Directory for 1858-59* (Sydney: Sands and Kenny, 1858), 246; *Sands & Kenny's Commercial and General Directory for 1861* (Sydney: Sands and Kenny, 1861), 255; *Sand's 1863, op. cit.*, 291; *Sands' Sydney Directory for 1865* (Sydney: John Sands, 1865), 360; *Sands' Sydney Directory for 1867* (Sydney: John Sands, 1867), 431; *Sands' 1869, op. cit.*, 444; *Sands' Sydney Directory for 1871* (Sydney: John Sands, 1871), 551; *Sands's Sydney Directory for 1875* (Sydney: John Sands, 1875), 520, 521; *Sands's Sydney & Suburban Directory for 1880* (Sydney: John Sands, 1880), 777; *Sands's Sydney & Suburban Directory for 1885* (Sydney: John Sands, 1885), 772; *Sands's Sydney & Suburban Directory for 1890* (Sydney: John Sands, 1890), 1083; *Sands' Sydney & Suburban Directory* (Sydney: John Sands, 1895), 896.

twenty-five per cent between 1876 (when it amounted to 8s. 8d. per head) and 1886 (when it reached 10s. 3d. per head).[75]

Whilst it is impossible to determine what proportion of these imports were cooking stoves, a consideration of these statistics together with advertising material, official reports and other accounts makes a number of things clear. Firstly, the 'cooking stove' as a new technology remained in a state of experimentation and adaptation throughout the nineteenth century. Although, as Brewer and Ravetz point out, there was some sense of what constituted a cooking stove by mid-century — a rectangular box with firebox, oven and hotplates[76]— the amount of variation within this basic framework was enormous. The stove could stand on its own legs, be enclosed within a fireplace, have one or two ovens, a boiler for water, the fire could be visible or hidden, there could be just one hot plate or eight, it could be adapted to burn fuel or coal or both. This is very evident if one looks at the cooking stoves displayed at the 1851 Exhibition. Altogether there were 189 exhibitors of hardware relating to stoves, grates and fenders, and commentators remarked on the striking variety of stoves, 'register and air, cooking and gas, heat-reflecting, smoke-curing, &c.'[77]

Although a wide range of options for a particular product was typical of nineteenth century technologies, none can quite have matched the stove for choice.[78] A surviving inventory from New York shows that as early as 1854 a single foundry was producing thirty different types of stoves each available in at least three different sizes.[79] Rathbone, Sard and Co. (a major American manufacturer who exhibited their stoves in Australia) listed seventy-one

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75 Wearing apparel increased at an even greater rate, from 16s.1d. to 25s.2d. T.A. Coghlan, *The Wealth and Progress of New South Wales, 1886-1887* (Sydney: Government Printer, 1887), 272, 273.

76 Brewer, Home Fires, *op. cit.*, 58.

77 *Exhibition of the Works of Industry*, II, *op. cit.*, 1086; *The Great Exhibition of the World's Industry, III* (London: John Talb & Co, 1851), 222.

78 See, for example, Robert Friedel's discussion of the multiplicity of choice that was characteristic of the tinware industry. Robert Friedel, Plain Stuff: Tinware in the 19th Century (Unpublished Paper Presented to the Delaware Seminar in American History, Art History and Material Culture, 15 March, 1989).

79 Inventory Stock On Hand, 26 June 1854: Johnson, Cox & Fuller 'Spuyten Duyvil Foundry', New York City, Warshaw Collection of Business Americana MS., Smithsonian Institution.

different types of stoves in their 1890 catalogue, each available in at least four different sizes. Their foundry was therefore producing parts for 284 stoves.[80] The 1887 catalogue from McLean Bros. of Melbourne listed nine sizes of colonial ovens, three British cooking stoves (the 'Atlantic', 'Empress' and 'Enchantress'), each available in four sizes and six American ('Ascot',' Derby', 'Gipsy Queen', 'St. Leger', 'Stenben' and 'Uncle Sam') also available in four sizes.[81]

Secondly, consumers remained dissatisfied with cast iron cooking stoves throughout the nineteenth century. The consumer could not be offered simply a 'cooking stove' but had to be given as much choice as possible in an attempt to meet a need that was in all probability not going to be met. With the sewing machine — undoubtedly the most successful technology to enter the nineteenth century home — the problem of how to sew two pieces of material together mechanically was quickly solved, and the concept of what constituted a sewing machine resolved. But with the cooking stove, a single solution was not found until the twentieth century. This failure to reach what the historians of technology, Trevor Pinch and Wiebe Bijker have called 'closure' demonstrates that the introduction of this new technology into the home did not elicit a single, homogenous response. 'Closure' is reached when the relevant social groups see the problem as being solved by the new technology, whether or not it actually is. 'Closure' for the cooking stove was not achieved until the twentieth century and the widespread acceptance of the gas, and later, the electric, stove. Until then, some consumers clung tenaciously to the old ways of doing things. As late as 1911, Anthony Hordern's were still selling the simple 'colonial oven' that domestic writers like Wilhelmina Rawson had so despaired of forty years earlier, alongside cast iron stoves and gas ovens. The causes of this failure are evident if we look in greater detail at the stoves and at consumers response to them.

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80 *Acorn Stoves and Ranges: Catalogue and Price List, 1890* (Albany: Rathbone, Sard & Co, 1890), np.

81 *Catalogue of Ironmongery, Hardware, Metals etc* (Melbourne: McLean Bros and Rigg, 1887), 71, 72, 114 ff.

4. Romancing the Cast Iron Stove

Although cast iron stoves were available in New South Wales by the early decades of the nineteenth century, the level of consumer acceptance varied widely. The kitchen at Government House, Parramatta, had a cooking range, probably installed by Macquarie in 1812; in 1813 the *Sydney Gazette* advertised a closed kitchen range with:

> oven, boiler, Hot Plate and Hot Closet; calculated to Bake, Boil, Roast, Steam, Stew and heat Flat Irons by a small Fire with a continued Supply of Ten Gallons of boiling Water.[82]

S.T. Gill's 1857 watercolour of a kitchen in Bridge Street, Sydney shows an open range with hotplate and wide brick hobs (Plate 14).[83] William Tanner had brought just such a range out from England to the new settlement on the Swan River in 1831; his inventory listed 'two iron frames for oven, two hob stoves and stands'.[84]

A surviving collection of auction notices from the 1840s provides a picture of the level of acceptance of the cast iron range. Amongst some forty notices for sale of house contents only five references could be found to them. The Rev. Dr. Bodenham had Gravely's 'patent cooking apparatus (new)';[85] J.N. Smith, a 'patent oven';[86] Hannibal Macarthur, a 'large range and fender',[87] Prosper de Mestre, an iron kitchen range[88] and David Chambers, 'one American oven and stand'.[89] By far the most common 'apparatus' mentioned was the fender. This was (and is) the surround that prevents wood and coals that have fallen onto the hearth from rolling into the room and its almost universal presence suggests that for the majority of households, cooking generally took place over an open fire or at best with a simple grate.

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82 Lane & Serle, *op. cit.*, 7, 211.

83 Shar Jones, *Monsieur Noufflard's House: Watercolours by S.T. Gill, 1857* (Sydney: Historic Houses Trust, nd), plate 7.

84 Pamela Statham (ed.), *The Tanner Letters: A Pioneer Saga of Swan River & Tasmania, 1831-1845* (Perth: University of Western Australia Press, 1981), 199.

85 *Bodenham, op. cit.*, 8.

86 *Catalogue of New & Elegant Rosewood and Mahogany Furniture: At the Residence of J.N. Smith, No. 150 Elizabeth Street, Hyde Park* (Sydney: Kemp and Fairfax, 1848), 8.

87 *Catalogue of Excellent Household Furniture, Cabinet Pianoforte: In the Insolvent Estate of H.H. Macarthur, at the Vineyard, Parramatta* (Sydney: Welch, 1848), 11.

88 *Catalogue of Elegant Household Furniture, Pianoforte etc.: Prosper de Mestre, Liverpool and Elizabeth Sts. Hyde Park* (Sydney: Statham & Forster, 1844), 6.

89 *Catalogue of Splendid Household Furniture: At the Present Residence of David Chambers, Jeffrey's Buildings, Cumberland St.* (Sydney: W.J. Morris, 1843), 6.

The persistence of traditional cooking methods in 1840s Sydney is further evident in the range of cooking utensils listed in the auction notices. Most kitchens contain equipment essential to roasting meat before the fire: roasting or bottle jacks, smoke jack spits, tin meat screens, Dutch ovens and gridirons.[90] But they also reveal that some households took advantage of the new technology of the cast iron range whilst preserving traditional cooking methods. Thus the kitchen of Camperdown Cottage, Newtown, had two cast iron cottage stoves and black lead to keep them polished, but it also contained a fender and dutch oven.[91] Prosper de Mestre's kitchen had a bottle jack as well as a range, indicating that the family continued to enjoy meat roasted before an open fire.[92] Similarly, Hannibal Macarthur's particularly well-equipped kitchen boasted a steam cooking apparatus and a large range, a smoke jack and coffee roaster (which was also placed over an open fire), 'two spits etc'.[93]

Households in Sydney differed in one important respect from those in rural areas, and from other colonial capitals, in their use of coal rather than wood as the principal fuel source. Auction notices contain repeated references to materials connected with the management of coals: copper coal scoops, iron coal holds, japanned coal scuttles, coal boxes, bellows and cinder sieves. The popularity of coal as a fuel source was not surprising since it generated twice the heat of wood and was readily available in Sydney. Coal was mined in New South Wales from 1800 and the largest coal field in Australia was only two hundred miles outside Sydney, in the Hunter Valley. In 1859, the Coal and Copper

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90 Among the auction notices in which such objects can be found are: *Superior Household Furniture and Splendid Oblique Grand Pianoforte: Property of Mashfield Mason* (Sydney: Kemp and Fairfax, 1845), 14; *Catalogue of Elegant Household Furniture: Lieut. Col. Barney, Fort Street* (Sydney: Welch, 1843), 10; *Elegant Household Furniture, Flinton House, Glenmore Road: The Property of W. Hustler* (Sydney: Kemp and Fairfax, 1845), 7; *Elegant Household Furniture, Superior Pianoforte: Henry Ginn* (Sydney: Kemp and Fairfax, 1846), 10; *Catalogue of Household Furniture: At the Residence of F. Parbury, Orwell House, Darlinghurst* (Sydney: Statham and Forster, 1847), 8; *Catalogue of Elegant Household Furniture: At the Residence of Hugh Chambers, Macquarie Street* (Sydney: T. Forster, 1847), 8; *Catalogue of Furniture, Plate, Plated Goods, etc.: The Property of His Honour Mr Justice Therry* (Sydney: Kemp and Fairfax, [1848]), 9.

91 *Sale of Household Furniture: Camperdown Cottage, Newtown* (Sydney: Kemp and Fairfax, 1846), 7.

92 *Prosper de Mestre, op. cit.*, 6.

93 *H.H. Macarthur, op. cit.*, 11.

Company offered 'superior screened coal' in either Newcastle or Sydney 'to the extent of three to four thousand tons weekly'.[94] However, once beyond Sydney, the cost of transport quickly did away with these advantages. As Graeme Davidson points out, coal which cost seven shillings at the pit in Newcastle, cost 21 shillings in Sydney, and between 24 and 30 shillings in Melbourne.[95]

It is evident that by mid-century, although some households had adopted the cast iron cooking range with enthusiasm, the majority continued to use traditional cooking methods. And even those that had a range persisted in roasting meat before the fire. This pattern of partial acceptance prevailed throughout the second half of the century and well into the next. Only one reference could be found to a cooking stove amongst the insolvency records surveyed for the 1870s, 1880s and 1890s: the saddler, John Owen, had one in his Wollongong kitchen.[96] The majority cooked on an open fire or simple grate, using the same basic equipment that Atkinson had recommended in 1826. John Shiel, a Murrumbateman contractor was typical. Although his parlour featured a clock and sewing machine, the kitchen could boast only a table, bucket, small quantity of crockery, tea kettle and frying pan.[97] Even when a household had a stove, traditional cooking methods were preserved. Evelyn Barwick wrote in 1889, 'I roasted two pieced of mutton, one on the Jack and one piece in the American oven.'[98] Furthermore, a collection of 1920s and 1930s auction records reveals that this uneven distribution continued well into the next century. Of the thirty houses auctioned, whilst the majority had a gas stove, two households still cooked with a wood stove and one used a kerosene stove. Even more surprising, a 1955 survey of household equipment found as many fuel stoves as electric in use, with 18 per cent of Brisbane housewives surveyed still preparing meals on a fuel stove.[99] It is quite

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94 *Sands and Kenny's 1858-59, op. cit.*, Advertising Supplement, np.

95 See Graeme Davidson, 'Energy' in Graeme Davison, J.W. McCarty and Ailsa McCleary (eds), *Australians 1888* (Sydney: Fairfax, Syme & Weldon Associates, 1987), 69-90 at 84.

96 John Owen, Insolvency Records 2/10,397, File 22681 (1887), State Archives Office of New South Wales.

97 John Shiel, Insolvency Records 2/10,392, File 22632 (1887), State Archives Office of New South Wales.

98 *Evelyn Barwick Diary*, 1 August 1889, in Ashton (ed.), *op. cit.*, 57.

99 *The Council for Advertising Research in Australia: Home Appliances, 1955 Survey of Ownership* (Sydney: Council for Advertising Research in Australia, 1955), np, Table 2.

clear form the persistence of these traditional methods that economic imperatives alone could not induce consumers to abandon traditional ways of preparing food.

Although practical considerations were significant, the major cause of consumer resistance to the cast iron stove — and later to its gas and electric equivalents — was its challenge to the 'cheerful fireside'. Heavy, black and almost monstrous in appearance it was the archetypal product of the industrial revolution. Its entry into the home was therefore dependant upon it being feminised and domesticated. The romancing of the stove was achieved, firstly by the application of 'feminine' names to denote different models and secondly through the adoption of the aesthetic of the parlour to their appearance.

A striking factor in nineteenth and early twentieth century stove catalogues is the use of an extraordinary range of names for this most banal product, each more ridiculous than the last. An 1887 catalogue from McLean Bros. of Melbourne lists the 'Ascot', 'Derby', 'Gipsy Queen',' St. Leger', 'Stenben', 'Uncle Sam', 'Empress' and 'Enchantress';[100] an 1895 catalogue from Anthony Hordern's includes the 'New Matron', the 'Dover', the 'Criterion', the 'Orient', and the 'Electric Light';[101] and an English catalogue from 1911 has the 'Glow-worm', the 'Avenue', the 'Clan-urbus', the 'Mercador', the 'Reform', the 'Icis' and the 'Zeus' among others.[102]

The domesticating of the stove's appearance was even more important than its name. As the first piece of nineteenth century technology to be permanently fixed in the home, it was particularly important that the stove looked the part. As one manufacturer wrote of his product in 1900:

> A merchant who has an eye to the appearance of his store will be delighted with the effect of a nice assortment of Buck's Steel Ranges when lined up as if for dress parade. When a customer enters he cannot but be struck with the imposing display, and a sale is half made without a word being spoken ... It is true that 'Beauty is but

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100 *Catalogue of Ironmongery, op. cit.*, 114 ff.

101 *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1895]), 423 ff.

102 *O'Brien, Thomas & Co.: Fireplaces, Cooking Apparatus and Domestic Hot Water Installations* (London: O'Brien, Thomas & Co, 1911), 109-130.

> skin deep', nevertheless it is of paramount importance in making a sale that the purchaser falls in love with the range 'at first sight'.[103]

Curved legs and rounded corners, embossed decorations on the front and sides, pierced shelves, decorative handles and nickel plating all gave the stove the aesthetic of the parlour, of rounded edges, shiny, polished surfaces and 'appropriate' decoration (Plate 15).[104] The importance of such features is evident in Mrs Lance Rawson's endorsement of the cast iron stove in 1886:

> The American Stoves are strong and useful, as well as being ornamental, and take very little extra trouble in cleaning: they are more expensive in the beginning, but last longer than an oven, and burn far less wood or coal ... the Colonial oven is anything but an ornament to the kitchen, while an American stove is the same to the kitchen that the piano is to the drawing room — a handsome piece of furniture.[105]

However the essential conservatism of the nineteenth century household can only have been reinforced by the practical drawbacks of the stove. Contemporary advertisements reveal that there was considerable cause for dissatisfaction with the cast iron range and that this persisted throughout the nineteenth century. As late as 1906, the ironmonger Lassetter's declared in an advertisement for the 'Bonnyridge Dover':

> This splendid new design has been got up to meet the demand for a cheap stove of moderate capacity but free from the usual glaring defects of this class of stove, and calculated to save the public the annoyance and worry entailed upon them by continual complaints from those who do not take into consideration the fact that in a cheap stove they ought not to expect all the good qualities in the more expensive sorts.[106]

An analysis of these advertisements reveals that a range of concerns persisted for almost a hundred years: installation, maintenance, economy of use and ability to cook. Put simply, the new stove did not do anything particularly well.

First, there was the problem of installation and 'setting', that is fitting into a fireplace or chimney and balancing. Frequent reference was made in advertisements to a particular

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103 *The Buck's Stove & Range Co St Louis: Catalogue No. 103* (St Louis: Buck's Stove & Range Co., [1900]), 16.

104 For a discussion of the aesthetic of nineteenth century domesticity see Richard L. Bushman, *The Refinement of America: Persons, Houses, Cities* (New York: Vintage Books, 1993).

105 Mrs Lance Rawson, *Cookery Book and Household Hints: Enlarged and Revised with which is incorporated the Queensland Poultry Book* (1878) (Rockhampton: William Hopkins, 1886), 5, 6.

106 *Lassetter's Complete General Catalogue* (Sydney: Lassetter's, 1906), 183.

model's ease of installation, a sure indicator that it was anything but. Anthony Hordern & Sons promoted the 'John Bull Range' as 'strong and sturdy, as the name indicates .... These ranges are portable and self-setting, and are ready for immediate use, thus being specially useful to country residents.'[107] But W.S. Friend's 1886 catalogue took a more realistic approach, providing detailed directions as to how to set the stove in the brickwork, install the flues and balance it, concluding with the recommendation that customers have the job professionally done.[108]

Second, there was the question of time-saving. Like other new technologies in the nineteenth century, cast iron stoves were often promoted as 'time savers', and advertisement made much of their 'efficiency'.[109] Yet, as Alison Ravetz points out, stoves were not and never could be time or labour-saving for women.[110] If coal was used, a stove would reduce or even eliminate men's job of chopping wood but it still left women with the job of sorting and sifting the coal, lighting the fire and maintaining the stove.[111] Coal fires were hard to light — an 1832 survey found that servants took anywhere from three to thirty minutes to produce a flame — and cleaning and maintaining the stove took enormous amounts of time.[112] Indeed, Priscilla Brewer found that the time spent in stove maintenance actually increased during the second half of the nineteenth century.[113] In 1890, the School of Housekeeping in Boston undertook a study of time taken in 'caring for a modern coal-burning stove' and found that it amounted to an extraordinary five hours and

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107 *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1900]), 58.

108 *W.S. Friend & Co., Ironmongers, Iron Merchants and Importers of English & American Hardware, York Street, Sydney, 1886* (Sydney: W.S. Friend & Co, 1886), 305-308.

109 See, for example, 'Russell's Celebrated Cooking Stoves ... justly celebrated for their simplicity, as well as for economy in fuel', *Illustrated Sydney News*, 28 April 1855, 212; Younger & Son's 'economical cooking apparatus — for durability, economy, and efficiency unequalled', *Illustrated Sydney News*, 16 July 1864, 16; and the 'Dover ... low in price, efficient and economical in working', *Anthony Hordern & Sons, 1895, op. cit.*, 423.

110 Ravetz, *op. cit.*, 459.

111 The size of the task of chopping wood for a fire that had to be kept alight all day was enormous. In 1908, A.B. Facey took an hour and a half each day to fill the woodbox with 75 mm thick pieces cut into 300 mm lengths. A.B. Facey, *A Fortunate Life* (Perth: Fremantle Arts Centre Press, 1981), 123.

112 The situation was substantially improved by the invention of friction matches in the 1830s, however they were not readily available until the 1860s and remained beyond the reach of the poor for some time. Hazen, *op. cit.*, 155, 157

113 Brewer, *op. cit.*, 131.

forty-three minutes a week, consisting of sifting ashes (20 min.), laying fire (24 min.), tending fire (1 hour 48 min.), emptying ash (30 min.), carrying coals (15 min.), blacking the stove (2 hours 9 min.).[114] Proper cleaning of the stove was essential if it was to function effectively. In their 1886 catalogue, W.S. Friend gave over several pages to cleaning directions, warning:

> It is most important that the Flues be cleaned out every week, which is done by removing the Plugs or Cleaning Cups on top of the Hot-plate, raking and brushing the tops and sides of Ovens and Boiler, and taking the soot out by the small door in front ...
>
> The efficiency of these Kitcheners, as of all other cooking Ranges, depends on the flues being KEPT CLEAN, and in good working condition.[115]

Some manufacturers took advantage of this, offering stoves such as the 'NonPareil', which had an oven that could 'be taken out bodily, making it an easy matter to cleanse it.'[116] Finally, there was the additional problem of maintaining the cast iron, a material that was highly susceptible to rust. As *Smith & Gardiner's Useful Almanack* pointed out in 1855 it was essential that the stove be blacked once a week; any spills immediately wiped up and the shelves cleaned, 'or your oven will give a bad taste to the next thing baked.'[117]

A third consideration was the success of cast iron stoves in cooking. Consumers continued to question their performance throughout the nineteenth century, as was evident both in the assertions made by manufacturers about their own products and in the criticisms made of their competitors. As late as 1910, the manufacturer of the Gold Medal Eagle Range pointed to the inferiority of their rivals' products:

> With most close-fire ranges there is a difficulty in obtaining a regular heat in all parts of the ovens ... consequently the articles cooking are frequently burnt at the top without being sufficiently cooked at the bottom.

Poor performance had been a problem since the cast iron range was first developed and its persistance almost a century later is indicative of the difficulties inherent in the technology. As a result, whereas within twenty years of their development sewing machine

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114 Hazen, *op. cit.*, 159, 161.
115 *W.S. Friend and Co., op. cit.*, 308.
116 *Australasian Ironmonger,* III(9),(1 September 1888), 272.
117 *Smith & Gardiner's Useful Almanack, 1855* (Sydney: Smith & Gardiner, 1855), 31 ff.

manufacturers were all agreed that their machines could sew, it was over half a century before stove manufacturers agreed that their products could cook.[118]

The stove manufacturers solution to the poor performance of their product was to offer a variety of complex systems of flues and dampers. By the 1870s, ironmongery catalogues read like physics textbooks. Although there was a 'gentlemanly' interest in heating and ventilating at the time, it is doubtful if many consumers could have made sense of the drawings of heat circulation provided by ironmongers like Friend, or the description of the particular advantages of the 'Maoridess' range given by Anthony Hordern's:

> For kindling fire there is a direct flue to pipe; for heating oven flue goes over top, down side, under bottom, and up back of oven and with fire at remaining side it is equally and perfectly heated. Openings on Hob at one side of, and in front underneath oven, for cleaning flues. It is fitted with cast-iron skirting at back and ends, and also cast-iron flue pipe, with cleaning door and damper.[119]

It was the attempt to meet this range of consumers' expectations that was the major cause of the huge range of stoves being offered. But manufacturers also took the rather pragmatic view that what consumers wanted was something 'new' rather than something that was necessarily 'better'. This is very evident in the way the same stove design was produced by a number of manufacturers, each claiming a unique advantage for their own product (Plate 16).

The history of the cast iron stove in nineteenth century Australia thus points to the importance of social and cultural factors in determining a technology's success. Simple economy was not sufficient incentive to adopt it — and manufacturers were thus forced to go to great lengths in the design and marketing of the stove to alleviate consumer concerns and overcome the threat implicit in the cast iron 'monster' by making it a 'handsome piece of furniture'. It was only after it had been romanced by the home, that the cast iron stove enjoyed any level of success in the home.[120] Ironically, by the 1930s the cooks who

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118 See Chapter VI.

119 *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons Ltd., 1914), 555.

120 For a discussion of gas cooking see Lane & Serle, *op. cit.*, 388; Rosemary Broomham, *First Light: 150 Years of Gas* (Sydney: Hale & Iremonger, 1987), 75 ff; Rebecca Weaver and Rodney Dale, *Machines in the Home* (Oxford: Oxford University Press, 1992), 14-18.

had once declared that the only way to roast meat was in front of a fire were now claiming that only a fuel stove could do the job properly.

Conclusion

As the first major piece of domestic technology to enter the home, the cooking stove provoked an ambivalent response. On the one had, it was celebrated as a positive improvement over the open fire; on the other, it was criticised for the imperfect way it operated. But undoubtedly the greatest consumer concern arose not from what it did but from what it symbolised: the move of the family away from the 'cheerful fireside', and of its mother into an increasingly sanitised workspace.

As Schwartz Cowan has argued, a network of social relations determined the choices made by consumers.[121] By 1900, the most important factor that limited the acceptance of the cast iron stove — the image of the family gathered around the hearth — was disappearing from popular memory, and being replaced with other rituals, notably that of dining. At the same time, the kitchen was changing. The spiritual and moral focus of family life moved away into the dining room and the parlour,[122] leaving the kitchen to become both more specialised and more industrial.[123] John Sulman's words to the 1903 meeting of the Australasian Association for the Advancement of Science were a harbinger of things to come:

> The most radical changes will have to be made in the kitchen department .... The kitchen itself need not be large, as it will be no longer a sitting and dining room for the servants, and may combine in itself the functions of kitchen, scullery, storeroom and pantry .... But it should be fitted in the most perfect manner possible to ensure cleanliness and expedite work .... The dirty coal-fire cooking-

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121 See the discussion of the American consumer's response to cooking stoves in Ruth Schwartz Cowan, 'The Consumption Junction', *op. cit.*, 261-280.

122 Brewer, Home Fires, *op. cit.*, 201.

123 Clifford E. Clark, 'Domestic Architecture as an Index to Social History: The Romantic Revival and the Cult of Domesticity in America, 1840-1870', *The Journal of Interdisciplinary History*, VII (1),(1976), 33-56.

> range must give place to a clean and perfected gas-cooker or electrical appliance as soon as they are available.[124]

By the 1920s, it was no longer necessary to base the design of the cooking stove on the aesthetic of the parlour. Although, given the age of most housing stock, it would be decades before the ideal of the kitchen as 'laboratory' was reached, kitchen equipment was beginning to take on a streamlined appearance, white washable surfaces were replacing wooden tables, and there was a general move toward at least the appearance of 'efficiency'.[125]

The cast iron cooking stove presented an obvious challenge to the 'cheerful fireside', yet consumers resisted its attractions until both the domestication of the stove (in design, materials and name) and changes in its social significance (through re-arrangement of spaces in the home and alteration of ideals about the family) made it desirable. Central to the stove's success was the identification of cooking as a key factor in maintaining a stable home, while the ideology of separate spheres underlined the financial dependence of women upon their husbands and fathers. In 1895, with the benefit of hindsight provided by her own experiences of the uncertainties of married life, Wilhelmina Rawson advised her readers:

> Let me suggest to prospective brides that they should stipulate for a stove if marrying a Bushman. A man will promise anything before marriage, very little after. I was wise in my generation, and stipulated for a stove and a mangle in preference to a piano, and got all three.[126]

Wilhelmina Rawson was fortunate: her stove not only served to keep her family happy, it also through her recipe books and guides, gave her a living.

The history of the cooking stove in nineteenth century Australia provides a clear example of the way the home could embrace a new technology, conservatise it, and move on. In the next chapter, I am going to look at the ways in which the home — despite the methods

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124 John Sulman, 'The 20th Century House: A Suggestion', *Report of the Ninth Meeting of the Australian Association for the Advancement of Science: Hobart, Tasmania, 1902* (Hobart: AAAS, 1903), 669-678 at 671.

125 For a discussion of the streamlining of the kitchen see Ellen Lupton and J. Abbott Miller, *The Bathroom, The Kitchen and the Aesthetics of Waste* (Cambridge, Mass.: MIT List Visual Arts Center, 1992).

126 Rawson, *Antipodean Cookery, op. cit.*, 6.

manufactures and retailers used — failed to domesticate that most characteristically Victorian product, the 'gadget'.

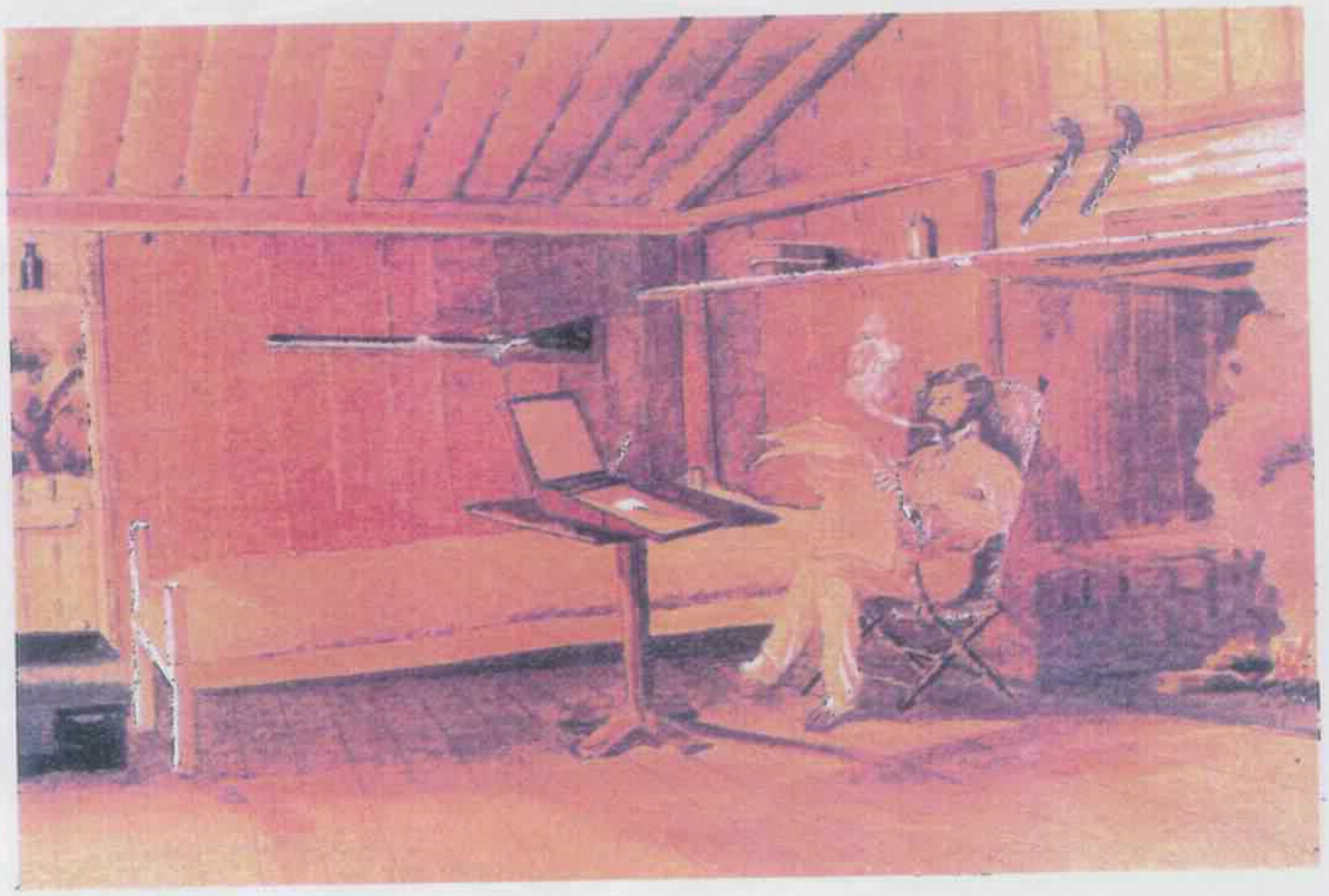
Plate 9



Kitchen-living room, Harmony Vale, photograph by Nicholas Caire, 1890s. Private collection.

This photograph of Jabez Richardson's home indicates the flexibility of the open fire. A camp oven was suspended from a crane over the fire, its contents simmering slowly while the kettle and saucepans requiring a quick boil were placed on flat bars directly over the hot coals. At the same time, bread was baked in the hot coals. On the right of the fireplace, a door led to the smoke room above where meat could be cured. Finally, the breadth of the chimney provided an additional light source to read by.

Plate 10



A Room in Woorungundi, A Squatter Taking it Easy, watercolour by Charles Archer, about 1847. Oxley Library.

Throughout the nineteenth century, the roaring fire was a persistent image of domestic comfort and prosperity. The stone benches built into the sides provided a cosy — if smoky — retreat from the inevitable drafts of a wooden hut.

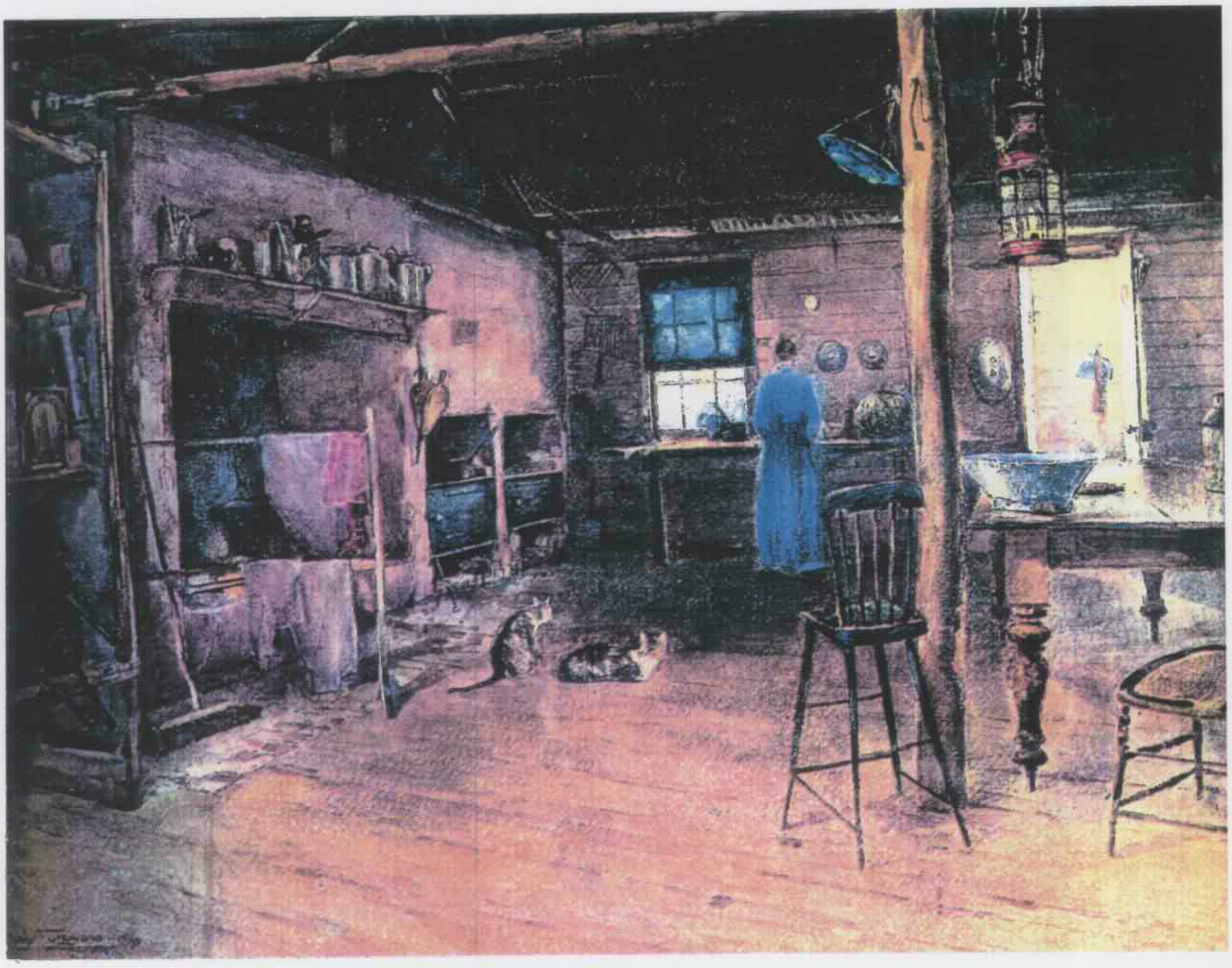
Plate 11



Rear of Unidentified House, Perth, photograph by Alfred Stone, about 1860. Battye Library, State Library of Western Australia

An enthusiastic amateur photographer, Alfred Stone took great pride in recording the homes and gardens of his family and friends. Such a large and well-stacked wood pile must have been a re-assuring sight to the nineteenth century householder and as much a symbol of comfort and prosperity as the fire it would serve.

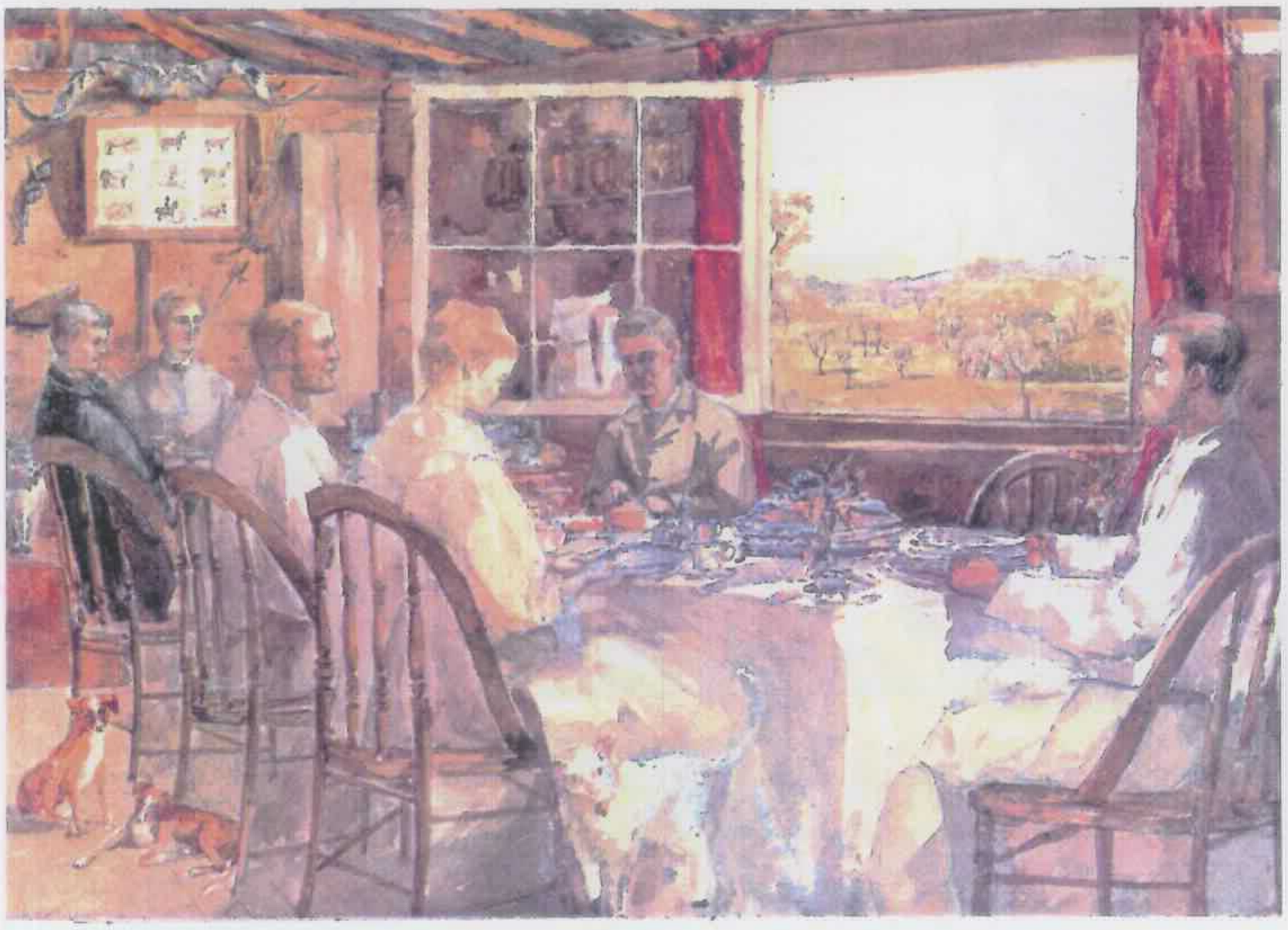
Plate 12



Kitchen, watercolour by A.H. Fullwood, 1890. Private collection.

This watercolour provides a good example of the persistence of traditional cooking methods and consequent mixture of old and new technologies in many nineteenth century Australian kitchens. A water fountain is suspended over an open fire whilst two colonial ovens have been crudely built into the side wall. The heavy cast iron saucepans sitting in the cupboard could have been used in either the fire or the oven and in all probability the housewife cooked using a combination of old and new practices.

Plate 13



Breakfast, Alpha, 1884, watercolour by Harriet Jane Neville-Rolfe, 1884. Queensland Art Gallery.

Whilst visiting her sister, Harriet Jane painted a series of watercolours of the family and station. These record the lengths to which the Neville-Rolfes went to ensure that the necessities of middle-class life were preserved despite quite literally being in the middle of nowhere. A snowy white tablecloth, matching dinner service, brightly polished silver and fresh flowers were the necessary accoutrements of respectable dining.

Plate 14



The kitchen at Monsieur Noufflard's House, watercolour by S.T. Gill, 1857. Historic Houses Trust.

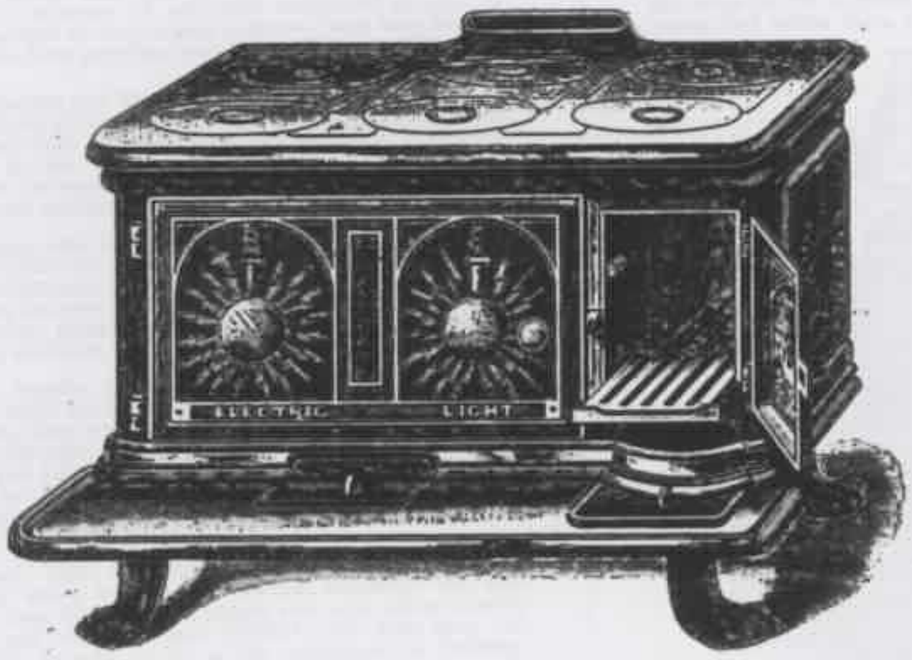
The simple cast iron range may well have been built into an existing fireplace. With a single oven and neither damper nor flues, it would have offered only basic heat control; although if the pie standing on the table is an indicator, successful baking was possible.

Plate 15

ANTHONY HORDERN & SONS, HAYMARKET ONLY, SYDNEY.

ELECTRIC LIGHT RANGE.

FOR EITHER COAL OR WOOD.



This Stove has been specially constructed for Australian requirements. One of its strongest recommendations is the number of moveable rings on the top plate, there being four over the oven and two over the fire, so that the boiling capacity is far in excess of what is usually the case. The Range has a deep Fire Box, Central Flue, Automatic Damper, and **Fall Down Grate to admit logs of wood.** It is strong and well finished, with bright mouldings round the hob and in front. The Oven is large and well ventilated, and hinged on left hand of Range. Altogether this Stove makes a handsome addition to the furniture of the kitchen.

SIZE OF OVEN.

	Width.	Height.	Width.	Depth.	Height.	
No. 7	29in.	23in.	15in.	15in.	8½in.	£2 10s. 0d.
„ 8	32in.	24in.	17in.	17in.	9½in.	£3 0s. 0d.
„ 9	34in.	25in.	18½in.	18½in.	10½in.	£3 12s. 6d.

Prices include Ring Lifter, Scraper, Poker, Brush, and 4 feet of Pipe to fit Flue.

PACKING FOR COUNTRY, 2/6 EACH, EXTRA. **See remarks on page 53.**

DUPLICATE PARTS OF STOVES.

It must not be supposed that, because some of the parts of your Stove gets cracked or lost, the Stove is done for. Even as **there is many a good tune played on an old fiddle,** so, by sending to us for duplicates of missing or broken parts, many an excellently cooked family feast will follow the repairs. We stock duplicates of top and bottom plates, oven linings, rings, cups, and fire-bricks in connection with any of the Stoves in this Catalogue. Prices on application.

The Stoves listed on this and other pages can be recommended as the best in the market; but, should other Stoves be required, we shall be pleased to send quotations and full particulars by return of post.

ALL PRICES IN THIS CATALOGUE ARE SUBJECT TO MARKET FLUCTUATIONS.

'The Electric Light Range', *Anthony Hordern & Sons*, (Sydney: Anthony Hordern & Sons, [1895]), 55. Museum of Applied Arts and Sciences.

With its rounded corners, 'bright mouldings' and claw feet, the Electric Light Range was proclaimed to be 'a handsome addition to the furniture of the kitchen'. A significant feature of the nineteenth century range was its low height, ranging in this case from twenty-three to twenty-five inches. In part this was due to the weight of cast iron utensils which could not be lifted to any great height; but it also reflected the traditional work practice of 'bending over' an open fire and persisted well into the twentieth century.

Plate 16

The new exhibits are a tussocker, made with six steel shares on strong wrought iron tines, of much the same design as a hay rake. It has been used very effectively in the Yea District by Gotch and Chrestal. P. B. Richards' harvester, which strips, cleans, and bags at one operation. It takes the same cut as a stripper, and is no heavier in draught. Provision is made for thrashing in damp weather. It has internal winnower, with automatically directed blast, compound riddles of perforated iron and wire web, which are always level, no matter what is the position of the machine. The seconds are caught in one compartment to be bagged, and provision is made for catching any tail grains, so that they are not lost. A grain elevator into box is placed at the side of the machine, of a capacity of two bags, so that the driver simply pulls up and loads. Mr. Richards is a practical farmer, and the machine is the result of ten years' experience of the wants of the district.

Swan and Co., 62 Elizabeth st., N. Melbourne.—The collection of the firm was fully equal to previous efforts, and consisted of chaff cutters, travelling chaff cutters and bag fillers combined, reapers and mowers, Hornsby's reaper and binder, Rosey's six h. p. portable engine, winnowing machines, and Cockerell's patent hay and straw press, a public trial of which was very recently reported in our columns.

Bennie Teare, and Co., a'Beckett-street, Melbourne, were again represented by a large assortment of engineers' tools, and fittings of all descriptions. Amongst their new goods we noticed the unbreakable file handle, the patent of A. C. Wells, and Co.; also the differential tight grip-pulley, the boss of which is designed on the well-known mechanical principles of the wedge or cone. In the centre of the boss is cast a hole of hexagon shape, tapering from the outside to the centre; in each side of the tapering hexagon hole, wedges are fitted, each a third of the hexagon, thus making three wedges on each side; the opposite wedges on each side are connected by a bolt with double nuts, and upon tightening the nuts the wedges are drawn together, pressing them against the boss and clipping the shaft. The inside of the wedges is made circular to the radius of the smallest diameter of shafting it is intended to use, so that with a larger shaft the wedges sit upon two different points each, or, in other words, the boss is carried on twelve points. The advantages claimed are many; it dispenses with cutting flats on the shaft, fitting keys or set screws, also all trouble through pulleys being bored the wrong size, inequalities in the shafting, &c.

Thomas Henderson, and Co., Elizabeth-st., N. Melbourne, like all the large Melbourne agricultural implement manufacturers was well represented in all descriptions of this class of machinery—strippers, winnowers, reapers and mowers, the Buckeye reaper and binder and the Buckeye grass mower, patent troughs, horse works, ploughs, chaffcutters, &c., all of similar design to those now on view at the Centennial Exhibition.

Ed. Dembrain, 54 Premier Buildings, Collins-st., E. Melbourne, exhibited a self-acting grubbing machine or root extractor, the patent of Pomeroy and Tarran, Seville near Melbourne, described and illustrated in our last issue. English waterproof machine leather belting was also shown.

The Indiarubber, Gutta Percha, and Telegraph Works Company, Limited, 172 Russell-st., Melbourne. A display embracing pretty well all engineer's requirements, such as insertion, rubber valves and joints, belting, &c., endless belts for thrashing machines, rubber hose, rubber boots, coats, cloaks, leggings, &c., and a collection of electrical apparatus.

MANUFACTURERS.

Hugh Lennon, North Melbourne, agricultural implement manufacturer, had a great variety of his chief specialty, ploughs, comprising single, double, treble, and four-furrow ploughs, vineyard ploughs, hillside ploughs, stump-jumping ploughs, subsoil ploughs, &c.; also harrows, strippers, winnowers, earth scoops, hay rakes, horse works, corn crushers, &c., making altogether a very large exhibit.

McCalman, Garde and Co., North Melbourne, also repeated their good display of last year, with their great specialty, ploughs of all sorts, rollers, harrows, grubbers, and a collection of drop forgings; this last industry I believe they have entirely in their own hands.

John Grant and Co., 30 Elizabeth-street North, Melbourne, a collection of well-made substantial ploughs, including plough for dam-sinking purposes, horse hoes, harrows, waggon for farm purposes, farm dray, and farmers' tip cart.

J. Nicholson and Co., Bouverie-st., Carlton, Melbourne, had some well-finished machines with many minor improvements introduced since last year's show, and which will be found described in the Centennial Exhibition report. These are strippers, harvesters, winnower and grain cleaner, reapers, reaper and mowers, horsegears, ploughs and harrows.

Robinson and Sons, a'Beckett-street, Melbourne, who are large exhibitors at the Melbourne Centennial Exhibition, had displayed almost a fac-simile of their exhibits in that building, including harvesters, latest improved damp-weather strippers, earth scoops, ploughs, climax seed sower and harrow, harrows, washing machines, &c., &c.

John Buncle and Son, Parkside Ironworks, North Melbourne, again exhibited their travelling chaff cutter and automatic bag filler, which represents a complete plant for cutting, sieving, elevating and filling bags at the rate of ten tons per day; also chaff cutters, saw benches, corn crushers, horse works, &c., similar in every way to those now on view at the Centennial Exhibition.

Cliff and Bunting, Elizabeth-street North, Melbourne, a new firm, made their first appearance at this Society's meeting with a few very well-finished machines, viz: chaff cutter, fitted with improved rollers, and a few minor improvements, and with sieve gear attached; two horse gear, with the stays extended as far as the swingletree for stability; firewood saw bench, and a carpenters' saw bench.

Booth, Macdonald and Co., Carlyle Implement Works, Christchurch, New Zealand, exhibited several of their leading specialties, including disc harrows, combined disc harrows and seed sowers, wool presses, and the Carlyle windmill, with pumps, complete, which was shown at work, constituting one of the attractions of the Show.

Radford and Co., Post Office-place, Melbourne, displayed very useful adjuncts to the farm and dairy in the shape of cheese tubs and vats, curd knives, milk cans, cart cans, milk buckets, dishes and sieves, and galvanised iron tubs.

Alfred E. Peirce, 80 Elizabeth-street North, Melbourne, had a very varied display of machines and fittings for the garden, field and farm, also for stables, piggeries, strippers, fowl houses, kennels, etc., besides a large miscellaneous display of washing, wringing, and mangling machines, clothes dryers, linen presses, greenhouse, wine bins, &c.

John Danks and Son, 43 Bourke-street West, Melbourne, who are always well represented at this meeting, had a very fair collection of their manufactures, consisting of Pulsometer pumps, with a capacity of 64 gals. per minute at 40 lbs. steam, Hydraulic Rams, Lift and Force Pumps, Deep Well Pumps, Chain Pumps, Windmill and Garden Pumps, Steam Engine Fittings, Watter Supply Goods, &c., &c.

Mephan Ferguson, Carlton Foundry, Melbourne.—Wrought Iron Pipes for water supply, gas, mining, and irrigation, as supplied to the Melbourne Water Supply Department, which have consumed about 7000 tons, from 9in. to 53in. diameter; also to Chaffey Bros. for irrigation works at Mildura, the Metropolitan and other gas companies, &c.

Metters Bros., Post Office Place East, Melbourne, had their improved ovens in use cooking several joints. A special feature in these is the fire placed on top, and wood up to 30 inches in length can be burnt; they, therefore, should receive favour in all up-country districts, and storekeepers ought to find them payable goods to stock; they appear very strong and durable; the top plate for boiling purposes is ¾-inch thick, the fire is regulated by the two sliding doors in front, the hot air before it goes up the chimney works round each side, underneath and up the back; they are made so that they can be used in the open air, and placed in any position. and high pressure boilers can be attached if required. The improved patent "Economic" frame for copper washing boilers was attracting considerable attention. The special feature is a slit of sheet iron placed sideways on the bottom of the frame; this keeps the fire together, prevents the flames touching the casing, and makes them play directly on the bottom of the



Metters' Bros. Improved Ovens.

copper, thus heating the water more quickly; by the addition of this improvement, less fuel is used, and the frame lasts very much longer. Enamelled wood mantelpieces in good style, and in great variety, were also shown.

MISCELLANEOUS.

A great number of less extensive exhibits were shown, amongst them being those of—

G. R. White, Lilydale—Ploughs, Harrows, and Scarifiers.

F. Vial and Co., Kensington—Machine Belting and Leather requirements for Mills.

Barnett Bros., 76 Collins-street West—Haywood's Semi-Prism Pavement Lights.

E. J. Davis, Glen Iris Poultry Farm, Malvern—Incubators and Churns.

J. J. Thomas, Somerset Place, Melbourne—Sheep-dipping Composition.

John Menzies, 28 Greville-street, Prahran—Four Vehicles, illustrating method of running on rails with sharp curves.

Campbell, Guthridge, and Co., 13 William-street, Melbourne, Lancashire Patent Belting and Hose.

The Massey Manufacturing Company, 245 Elizabeth-street—The Toronto Binder, Mower, and Horse Rake.

W. C. Stott, 23 Post-office Place, Melbourne—Patent Furnaces and Washing Coppers, Colonial Ovens, and general copper work.

Morris, Little and Son, 91 Bourke-street West, Melbourne—Several sorts of Non-poisonous Sheep Dips and Disinfectants.

Robison Bros. and Co., 31 Flinders-lane West, Melbourne—Several sizes of their Patent Centrifugal Pumps, shown at work, driven by Portable Engine.

The London and Birmingham Hardware Company, Limited, Clerkenwell, London (J. H. Stiles, 114 Michael-street, Clifton Hill, Melbourne, agent)—Patent Portable Refrigerators and Domestic Articles in the shape of Potato Mashers, Potato Peelers, &c.

William J. Bochner, 196 Collins-street West, Melbourne—The well-known "Oncoerx" Reaper and Binder.

D. Altson, 61 Bourke-street West, Melbourne—A most complete assortment of Saddlery and Harness, Military Equipments, &c., of the most modern designs.

Gow and MacFarlane, Montague-street, South Melbourne—Single, Double, and Treble Furrow Ploughs, Scarifiers, and Harrows.

Michael Landy, Briagolong, Victoria—Potato Planter, the patent of G. W. Murray and Co., Banff.

Wm. Adamson and Co., William-street, Melbourne—Butter and Cheese Coolers.

F. Renfrey, Balleen Road, Kew—Patent Horse Holder, for checking and preventing horses from bolting.

John Booth, Wallan Wallan—Six Sets Harrows, with oval steel tines, and improved drag bar.

Wm. Orr, 43 Elizabeth-street, Melbourne—Hamdley's Patent Washing Machines.

F. Mason, 38 Elizabeth-street North, Melbourne—The "Dexexo," all steel twine binder.

John S. Reid (care of Briscoe and Co., 172 Queen-street, Melbourne)—Reid's Patent "Titan" Wire Strainers, and "Triplex" Wire Stretchers.

F. Flood, 55 Reilly-street, Collingwood—Improved Water Lift and Horse Works.

Elfenbein, Tovey, and Rickard, 118 Lonsdale-street, Melbourne—Patent Incubator and Rearing Mother.

Price Williams, Latrobe-street West, Melbourne—Wool Presses for both large and small stations, and Cheese Presses.

Howden and Son, Flemington-road, North Melbourne—Heavy and Light Harrows.

John King, Cooper, 20 Elizabeth-street, North Melbourne—Barrel Churns, Revolving Dash Churns, Pump Churns, Milking Buckets, Dishes, &c., in no way inferior in finish to his previous displays.

R. Johnson, Harding-road, Coburg—Incubator at work, and Rearing Mother with chickens running about.

Gow Bros., 8 Market Buildings, William-street, Melbourne—Bain's "Lochrin" Patent Wire Fencing.

The only prize awarded for machinery and implements, namely, the Special Prize of £10 10s. (the gift of Mr. John Blyth, for best collection of agricultural machinery) was awarded to **Hugh Lennon.**

MISCELLANEOUS TELEGRAPHIC ITEMS.

New German Steamship Service.—The company projected for the establishment of a steamship service between Hamburg and Australia, has been successfully formed in this city. (Hamburg, Sep. 19).

Colonial Timber for Great Britain and the Continent.—Mr. Laurie of Port Macquarie, New South Wales, has obtained several large orders for the supply of colonial timber, including a trial shipment for the German Government of timber for street paving purposes at Hamburg (London, Sep. 1).

Coorong Petroleum Company.—Professor Pearson, of Victoria, is endeavouring to float the Coorong Petroleum Company on the London market (London, Sep. 6).

TRADE NOTES.

The business of the Fiji Trading Company (Messrs. James McEwan and Co.) has been sold to Messrs. Henry Marks and Co. Mr. Andrew Lyell and Mr. Simmonds are in that colony arranging the transfers.

Mr. Fred. Mason, 38 Elizabeth-street, Melbourne, has taken the sole agency for Victoria and South Australia for Messrs. Booth, Macdonald and Co., Christchurch. F. Lassetter and Co., Limited, are the sole agents for New South Wales.

'Metters' Bros Improved Ovens', *Australasian Ironmonger*, 1 October 1888, 363.

This 'improved oven' had in fact been produced by Metters for over a decade. Exactly the same oven — and with the same claim to originality — as produced by Galliers & Klaerr and Douglas and Co.

III

Yankee Gadgets: The Response to the 'Scientific Cottage'

Introduction

If the cast iron stove was the most complex of the new domestic technologies to enter the nineteenth century Australian home, gadgets were the simplest. Yet, since they were relatively inexpensive, light and portable, they also had the potential to transform the domestic haven in ways that more expensive appliances could not. Indeed, Susan Strasser argues that the egg beater was one of the few technological innovations bought in sufficient numbers to have a decisive impact on American cooking.[1]

A gadget as defined by *The Macquarie Dictionary* is 'a mechanical contrivance or device; any ingenious article'.[2] In the home, gadgets are generally taken to mean those appliances and utensils — both useful and useless — that lie under the sink or in the pantry. Displays at the Great Exhibition revealed the range of objects that could be said to fall within the term: a coffee mill 'with anti-friction wheel', enamelware, a 'new potato steamer', suet and herb chopping machine, cheese toasters, egg coddlers, water boilers, patent egg beater, ice cream freezer, sausage stuffer and a self-adjusting churn.[3] In fact, as Siegfried Giedion pointed out in *Mechanization Takes Command*, as far as their physical principles were concerned, most gadgets could have been invented in the fifteenth century. However, it was only with the industrial revolution and the general 'recasting' of work tools that the impetus arose for such basic domestic tools.[4]

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1 Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982), 33.

2 *The Macquarie Dictionary* (Sydney: Macquarie Library, 1982), 730.

3 *Exhibition of the Works of Industry of all Nations: Reports by the Jurors* (London: W. Clowes and Sons, 1852), 620, 637, 642, 667, 1431, 1448, 1464.

4 The to-and-fro action of the hand was replaced with a continuous rotary movement. Thus the apple parer was an application of the principle of the lathe, while the egg beater extended the principle of the drill to liquids. Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (1948)(New York: W.W. Norton and Company, 1975), 553-556.

Indeed, today such gadgets are seen as characteristically Victorian, proof positive of the mechanical ingenuity and inventiveness of the nineteenth century. As the *Journal of Domestic Appliances* proclaimed in 1882:

> Year by year domestic inventions of every kind are increasing; and no matter whether we desire to clean knives, or make stockings, peel potatoes, black shoes, make butter, wash clothes, stitch dresses, shell peas or even bake our bread, all we have to do now is turn a handle .... This is a regular hand-turning age, and we may soon expect to wash and dress ourselves, clean the windows, scrub the floors, lay the table, make our beds and do every household operation through the same medium. We shall then only require a handle to appease a stormy wife, quiet a screaming baby, and pay the tax collector, and our domestic happiness will have reached perfection.[5]

Nothing epitomised the extent to which Victorian society was being 'industrialised' more than the handles, cogs, wheels and springs of the apple peeler, cherry stoner, egg beater and cake mixer.

However, the diversity and quantity of gadgets available in the nineteenth century has all too readily been interpreted as an indicator of their popularity. If the history of a technological innovation is not simply the history of its manufacture and promotion, but also the history of its actual success in the marketplace, it is apparent that Australian women remained impervious to the seductions of science and technology as embodied in gadgets. Male manufacturers and retailers who sought to re-define the nineteenth century Australian home as a 'scientific cottage' were rejected by the female managers of that cottage. For within the household, women (rather than men) made the decisions about which new technologies were to be embraced and which objects were to be purchased. Women, who visited the exhibitions, bought the magazines and moreover, shopped in department stores, remained impervious to the seductive power of the 'new' unless it could be encompassed within the existing ideal of domesticity and serve to reinforce it. The siren call of technology — epitomised by such gadgets as egg beaters, meat mincers and apple peelers — fell on deaf ears and the Australian kitchen remained largely unaffected by the mechanical genius of the age.

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5 *Journal of Domestic Appliances*, 1 September 1882 quoted in Christina Hardyment, *From Mangle to Microwave: The Mechanization of Household Work* (Cambridge: Polity Press, 1988), 22.

1. 'Our Notions Take Well Here': Yankee Novelties and American Trade

Nineteenth century Australia saw a great deal of interest in the 'new' in field, factory, and home. Thus it was that *Australasian Ironmonger* featured a 'novelties' page in each issue, focusing on new labour-saving appliances (Plate 17). This openness to new ideas and new machines was regarded as characteristic of the colonies' recent 'birth', a characteristic they shared with the United States. This enthusiasm for innovation and novelty was a necessary part of the colonies' identification with the new world and their distancing from the old. It is therefore easy to misread the attention given to gadgets as evidence of their acceptance. However, an analysis of trade statistics and contemporary inventories reveals to the contrary, that the actual numbers of meat mincers, potato peelers and cake mixers purchased remained small throughout the nineteenth century and into the twentieth.

Although such gadgets came from Britain and Europe as well as America, colonists identified them as characteristically 'Yankee' in origin. This reputation of the United States as an innovative nation was further strengthened by their performance at international exhibitions, where they often led the field in new technologies.[6] At the 1851 Exhibition, for example, Americans created a sensation with the Colt revolver, the McCormick reaper and the locks of Alfred Hobbs.[7] There was a general belief that Americans were particularly

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6 An American author reported that, at the 1851 Exhibition, his countrymen took more 'Premiums' than any other nation relative to population size: 'The great medal in agricultural implements goes to our country for the Reaping Machine, and the great one in cloth fabrics to us, for India Rubber Vulcanized goods. Prouty & Mears are to have the Premium on their Plough, No 41, and our good Kennebec friend, Dunn ... is to receive the great medal for his scythes. In point of Inventions, Palmer's Artificial Leg is promoted the first thing in the Exhibition.' William A. Drew, *Glimpses and Gatherings During a Voyage and Visit to London and the Great Exhibition in the Summer of 1851* (Augusta: Homer & Marley, 1852), 326.

7 See Otto Mayr and Robert C. Post, 'Introduction' in Otto Mayr and Robert C. Post (eds), *Yankee Enterprise: The Rise of the American System of Manufactures* (Washington, D.C.: Smithsonian Institution Press, 1981), xii. The British were sufficiently impressed by American exhibits to send a delegation to the United States to investigate what came to be called the 'American system of manufactures'. Joseph Whitworth and John Anderson studied American manufacturing methods and bought American machine tools to equip the new small arms factory being built at Enfield Arsenal. See David A. Hounshell, 'The System: Theory and Practice', in *ibid.*, 127-151.

clever at manufacturing the practical — rather than the beautiful — product. As the jurors commented in the *Exhibition Catalogue:*

> The absence in the United States of those vast accumulations of wealth which favour the expenditure of large sums on articles of mere luxury, and general distribution in the means of procuring the more substantial conveniences of life, impart to the productions of American industry a character distinct from that of many other countries .... Both manual and mechanical labour are applied with direct reference to increasing the number and the quality of articles suited to the wants of a whole people, and adapted to promote the enjoyment of that modest competency which prevails among them.[8]

Despite the Civil War, which reduced American contributions to London's 1862 International Exhibition to a 'few plain utilitarian articles', this view prevailed, and America became identified as the home of the 'labour-saving machine'.[9] Indeed, this image of ingenuity and ingeniousness was cultivated by the United States. A flyer calling for submissions to the 1867 Paris Exposition reminded potential American contributors of the reputation they had to maintain:

> England claims for her products, 'strength, solidity and utility'; France, for hers, 'graceful forms, beautiful combinations of colours and fine designs'; the United States may rival both, in ingenuity and variety of her useful inventions, in the wonderfully successful adaptations of her original machinery to the wants of a manufacturing and agricultural community, and above all in the magnitude of her raw products, both vegetable and mineral.[10]

The American emphasis on labour-saving struck a particular chord in Australia, where similar pressures of a small labour force and high wages applied.[11] In addition, colonists — at least in the press and in public debate — liked to think of themselves as more open to innovation than their British counterparts, as 'That great America on the other side of the sphere'.[12] Thus in 1837, a Sydney newspaper greeted the arrival of the first United States Consul in Sydney with the assurance that:

> The spirit of commercial enterprise is never, perhaps, more energetic, adventurous and persevering, in any nation that it is now ... [in] the United States of America .... With a disposition for commerce so keen and determined, it is no wonder that our

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8 *Exhibition of the Works of Industry, op. cit.,* 1431.

9 See *International Exhibition 1862: United States Official Catalogue* (London: C. & F. Bell, 1862), ii, iii; *International Exhibition, 1862: Reports by the Juries* (London: William Clowes & Sons, 1863), 3.

10 *Universal Exposition to be Held at Paris in the Year 1867, to Commence April 1, and Close October 31, 1867* (New York: U.S. Agency for the Paris Universal Exposition, 1866), Warshaw Collection of Business Americana, Smithsonian Institution.

11 Reporting on the 1888 Exhibition, Sir George Verdun wrote: 'With us labour-saving appliances are a prime necessity.' *Report of the Royal Commission for the Melbourne Centennial International Exhibition of 1888* (London: Eyre and Spottiswoode, 1889), 26.

12 Hermann Melville's description of Australia in *Moby Dick* (1851) quoted in Roger Bell 'The American Influence' in Neville Meaney (ed.), *Under New Heavens* (Melbourne: Heinemann Educational, 1989), 325-377 at 328.

> friend ... should have found his way to the coast of New South Wales, and hit upon schemes for extracting dollars .... It is natural that Australia should look upon the United States with more than ordinary interest. Throughout the whole of their history, there are broad features bearing no imaginary resemblance to our own.[13]

Australians did not just admire the United States, they recognised in them a role model. *The Colonist* went on to predict that as America had outgrown 'the trammels of national juvenility', so too would her younger sister.[14]

The result was a long tradition of trade between the United States and Australia, the importance of which was evident in Washington's early appointment of consuls: James Hartwell Williams arrived as Sydney's first American consul in 1837; a second consul was appointed to Hobart in 1842 and a third to Melbourne in 1852. At various times there were other consular agencies in Brisbane, Newcastle, Port Adelaide and the Bay of Islands.[15] Although the real value of the trade they oversaw came from staples like lumber and (later) kerosene, it was characterised as innovative and ingenious through reference to the far less significant hardware trade. Comparatively small, and far outstripped by trade from Britain, it was nonetheless taken as the measure of commercial relations between the two countries.[16]

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13 *The Colonist*, 19 January 1837. Newsclipping in United States Consular Despatches: Sydney M173, Volume I (1837), National Archives of the United States of America, Washington, D.C.

14 Although the numbers of Americans resident in the colonies would always remain small, increasing availability of cheap books, travelling speakers and performers meant that there was substantial access to American ideas. Frances Trollope's *Domestic Manners in America*, George Bancroft's *History of the United States*, and J. Fenimore Cooper's *The Last of the Mohicans* were popular works in Sydney and Melbourne. See Philip Bell and Roger Bell, *Implicated: The United States in Australia* (Melbourne: Oxford University Press, 1993), 19-26. American performers regularly toured throughout urban and rural Australia ensuring widespread access to their popular culture. See Richard Waterhouse, *From Minstrel Show to Vaudeville: The Australian Popular Stage, 1877-1914* (Sydney: University of New South Wales Press, 1990), 20-46.

15 In 1838, America exported $US34,362 (or £8,590) of goods to Australia, a level that was sustained until the boom of the goldrush years. For details of the early trade between the United States and Australia see J. Smith Homans, *Historical and Statistical Account of the Foreign Commerce of the United States* (New York: G.P. Putnam & Co., 1857), 83; see also John Wade, 'Young America and Young Australia: 200 Years of U.S. Trade', *Australiana*, 14 (4),(November 1992), 89-96. Throughout the period under discussion the exchange rate was $US4 to the £. Trade was only one part of consular responsibilities. As their correspondence reveals, much of their work lay in caring for American whalers. Sydney remained a consulate until 1862 when it was reduced to a commercial agency and Melbourne took on the responsibilities of consul-general. Sydney became a consulate again in February 1876. *Guide to the National Archives of the United States* (Washington, D.C.: Government Printer, 1974), 35, 36.

16 In 1858, £247,661 of hardware and ironmongery were imported into New South Wales. Of this ninety-one per cent came from Britain, five per cent from Victoria, four per cent from the U.S.A. and one per cent each from New Zealand, South Sea Islands, France, Germany and Suez. In 1865 hardware imports had risen to £289,692 with Britain accounting for eighty-six per

By 1858 the American Consul, Robert Merrill, was writing to Washington, 'It is extremely gratifying to note the increased demand for our manufactures particularly of agricultural implements, and what are generally termed Yankee notions.'[17] At the close of the 1879 Sydney International Exhibition, the ode *Goodbye to our First International* reinforced this view of the primary trading relationship between the two countries being in new technologies and gadgets:

> Farewell! Dear Stars and Stripes, our thanks to you
> For lifts to heaven — for Waltham tickers true;
> For notions numerous, quaint, cheap and queer,
> From safety pins to whipple high in air.[18]

Ten years later the Sydney Consul, G.W. Griffin, quoted an article in *Australasian Ironmonger* that argued, 'It may be a delicate point to touch upon, but I cannot help remarking that the Americans seem in many respects more suited to meet the requirements of the colonists than the English do.'[19] Looking for parallels between the two countries, colonial officials and American consuls agreed that this spirit of innovation and openness to new ideas was common to both. Thus the American Consul observed on the eve of Melbourne's 1888 Centennial Exhibition:

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cent, Victoria three per cent and the United States nine per cent. *Statistical Register of New South Wales, from 1859 to 1858* (Sydney: Government Printer, 1859), 18; *Statistical Register of New South Wales, for the Year 1865* (Sydney: Government Printer, 1866), 53. Although import levels for hardware decreased in the late 1860s, the American market share was sustained, and in the decade between 1877 and 1887 it ranged from a low of eight per cent (in 1878) to highs of fifteen per cent (in 1880, 1881 and 1887). *Statistical Register of New South Wales, for the Year 1866* (Sydney: Government Printer, 1867), 8; *Statistical Register of New South Wales, for the Year 1877* (Sydney: Government Printer, 1878), 78; *Statistical Register of New South Wales, for the Year 1878* (Sydney: Government Printer, 1879), 80; *Statistical Register of New South Wales, for the Year 1879* (Sydney: Government Printer, 1880), 83; *Statistical Register of New South Wales, for the Year 1880* (Sydney: Government Printer, 1881), 80; *Statistical Register of New South Wales, for the Year 1881* (Sydney: Government Printer, 1882), 83; *Statistical Register of New South Wales, for the Year 1882* (Sydney: Government Printer, 1883), 83; *Statistical Register of New South Wales, for the Year 1883* (Sydney: Government Printer, 1884), 86; *Statistical Register of New South Wales, for the Year 1884* (Sydney: Government Printer, 1885), 88; *Statistical Register of New South Wales, for the Year 1885* (Sydney: Government Printer, 1886), 88; *Statistical Register of New South Wales, for the Year 1886* (Sydney: Government Printer, 1887), 65; *Statistical Register of New South Wales for the Year 1887* (Sydney: Government Printer, 1888), 61.

17 Sydney Consul to Secretary of State, 11 October 1858, United States Consular Despatches: Sydney, M173, Volume IV(1858), National Archives of the United States of America, Washington, D.C.

18 'Goodbye to our First International', unsourced newsclipping. Newspaper Cuttings Volume 188, Mitchell Library, State Library of New South Wales.

19 G.W. Griffin, *New South Wales: Her Commerce and Resources* (Sydney: Charles Potter, 1888), 256, 257.

> Nor is there that disinclination to adopt novelties here which the spirit of conservatism and dislike of change combine to inspire in the minds of a large section of the population of Great Britain.[20]

The American Commissioners to that exhibition were equally enthusiastic, describing Australia as a 'large and profitable' field for commercial activity awaiting 'exploration by Americans':

> who certainly understand the wants and requirements of new countries better than the more conservative merchants and manufacturers of Great Britain, habituated to the routine methods of old civilizations and long-settled communities. American labour-saving machinery, the many ingenious mechanical appliances ... ought to find an ever-expanding market in the Australian colonies, where, indeed, American organs and pianos, American sewing-machines, American clocks and watches, kerosene, hardware, tinned fish, canned fruits, and 'Yankee notions', have found a considerable outlet for many years past.[21]

Such rhetorical enthusiasm, however, must not be mistaken for actual consumption.

Although at this distance it is impossible to know exactly what type and amount of hardware was imported, surviving consular records and ship manifests reveal that the actual numbers of gadgets and other labour saving appliances imported — with the exception of sewing machines — remained modest. Typically, hardware represented at most one per cent of American trade with New South Wales, and since the term hardware embraced a wide range of material — from edge tools to door furniture, rolier skates and cooking utensils — it can safely be concluded that the number of 'Yankee gadgets' available in colonial Australia was quite small.[22] According to the annual report of the American Consul in Sydney for the year ended 30 September 1860, the major imports from America were sawn timber (fifty per cent), wheat (twenty-three per cent) and flour (fourteen per cent) with 'American manufactures' representing only one per cent of overall value.[23] Twenty years later, the situation had changed little. Reporting on trade with Queensland for the year ending 31 December 1883, the Sydney Consul noted that principal imports were

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20 *Report of the United States Commissioner to the Centennial International Exhibition at Melbourne, 1888* (Washington, D.C.: Government Printer, 1889), 19.

21 *Ibid.*, 181.

22 Griffin defined the term hardware as referring to: edge tools, axes, hatchets, planes, chisels, hammers, saws, monkey-wrenches, locks, door-knobs, latches, fastenings for shutters, iron buckets, wringers, mangles, stoves, pots, kettles, and other cooking utensils; meat-choppers, bells, roller-skates etc. Griffin, *op. cit.*, 255.

23 Annual Report from Sydney Consul, 5 October 1860, United States Consular Despatches: Sydney, M173, Volume V(1860), National Archives of the United States of America, Washington, D.C.

sawn timber (thirty-three per cent) and kerosene (twenty-one per cent), with sewing machines accounting for two per cent, and tools and utensils less than one per cent.[24]

Furthermore, gadgets were only a tiny portion of the goods included within the broad category of hardware. Canadian Commissioners to the 1877 Inter-Colonial Exhibition in Sydney listed the contents of a number of American ships arriving in the colonies in order to give their countrymen, 'an idea of the character of shipments from the United States'.[25] An American ship transporting goods to Queensland in 1878 off-loaded cargo at Brisbane that included agricultural machinery, food, drugs, tobacco, 120 cases of clothes pins, fifty-nine dozen washboards, two cases of mangles, three racks of churns, seventeen cases of clocks and twenty-five bundles of brooms. Likewise, the *Carlotta*, arriving in Hobart from New York brought hardware consisting of forty-five boxes of axes, fifty-three cases of handles, 314 oars, 500 kegs of nails, 206 packages of nests of tubs and 216 doors.[26] It is significant that one ship had no domestic gadgets at all and that on the other, 708 washboards were imported compared to two cases of mangles, which — given the size and weight of the latter — meant that it was expected sales could be found for at least thirty-five times as many washboards as for the 'labour-saving' mangles.

The uncritical acclaim of the 'new' that was so characteristic of writings about gadgets and labour-saving appliances can therefore be attributed far more to the way American commercial agents — and colonial governments — wished to be perceived and the alliances they wished to form, than to any factual measure of consumer demand. Although American gadgets were celebrated, particularly in relation to the domestic sphere, they were not taken up by Australian consumers. And, as will be shown, this was because decisions about which gadgets to buy were not made by the men who produced and sold them, but by the women who bought and used them. Even successful technologies like the

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24 Annual Report from Sydney Consul, March 1885, United States Consular Despatches: Sydney, M173, Volume IX(1885), National Archives of the United States of America, Washington, D.C.

25 *Report of the Canadian Commissioner at the Exhibition of Industry held at Sydney, New South Wales, 1877* (Ottawa: Department of Agriculture, 1878), 38, 39.

26 *Ibid.*, 16, 40, 41.

sewing machine met with some resistance; and consumers required more than just 'newness' to encourage them to spend their income on 'Yankee notions'.

2. Selling: Seduction and Resistance

Oscar Comettant, a French visitor to the 1888 Exhibition, observed that success in selling depended not just on the merits of the goods but also on the way they were sold:

> In fact, people buy products they have seen samples of and the orders are available to those that go after them. No longer does the consumer approach the producer; competition has reversed the roles, and it is up to the producer to approach the consumer.[27]

Selling gadgets served to reinforce the positive dialectic of the machine. Yet, it was a dialectic to which women remained largely impervious.

Generally speaking, there were three ways in which most Australian housewives encountered new gadgets: at local, intercolonial and international exhibitions of manufactures; in ironmongery and department stores; and through notices in the popular press or the pages of domestic guide books. Display, desire and scientific management — all three were comparatively new aspects of the shift in the didactic relationship between producer and consumer.

A. Exhibiting and Advertising

From the local agricultural shows, that were a traditional feature of English rural and city life, to the grand internationals, exhibitions provided the major means of disseminating new technologies and underscoring the heroic, positivist message of the machine age.[28] Exhibitions were thought particularly important to new colonies which, as Sir George Verdun wrote in 1888, were far from 'European skill and industry':

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27 Oscar Comettant (trans. by Judith Armstrong), *In the Land of Kangaroos and Gold Mines* (Adelaide: Rigby Ltd, 1980), 234.

28 For a history of exhibitions before the 'Great Exhibition' see Toshio Kusamitsu, 'Great Exhibitions Before 1851', *History Workshop Journal*, 9 (1980), 70-89.

> Indeed, they are almost essential to their development. The colonies have raw products to sell, and they require in exchange those commodities which other countries are best able to provide. They desire to import or make for themselves all the best appliances for agriculture, mining, and manufactures, and exhibitions bring to their doors the most perfect models of their kind.[29]

But exhibitions did not merely introduce new goods to the public; they also embraced and reinforced the rhetoric of the industrial revolution.[30] The classification systems, the architecture, arrangement and organisation combined to reveal the machine as the Messiah, leading the human race to the promised land. As the eulogy for London's Great Exhibition proclaimed:

> The band of commerce was designed,
> To associate all the branches of mankind;
> And, if boundless plenty be the robe,
> Trade is the golden girdle of the globe.[31]

Whilst the ideology of the exhibitions was progress and education, the day-to-day reality was free trade and profit. Above all, they offered an opportunity to bring goods before a receptive public. And it was the domestic consumer — and, indeed, the housewife —that was the 'target' for these displays. Writing in the *Revue de Paris*, Henry Chardon commented:

> Expositions secure for the manufacturer, for the businessman, the most striking publicity. In one day they will bring before his machine, his display, his shop windows, more people than he would see in a lifetime in his factory or store. They seek out clients ... bring them at a set time, so that everything is ready to receive them and seduce them. That is why the number of exhibitions increases daily.[32]

The most striking evidence of this commercial bias lies in the debate over price tags.[33] Price tags had been specifically excluded from displays at the Great Exhibition.[34] Although

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29 *Report of the Royal Commission for the Melbourne Centennial International Exhibition of 1888* (London: Eyre and Spottiswoode, 1889), 25.

30 For a history of international exhibitions see Paul Greenhalgh, *Ephemeral Vistas: The Expositions Universelles, Great Exhibitions and World's Fairs, 1851-1939* (Manchester: Manchester University Press, 1988); Robert W. Rydell, *All the World's a Fair: Visions of Empire at American International Expositions, 1876-1916* (Chicago: University of Chicago Press, 1984). For Australia see Linda Young, 'Let Them See How Like England We Can Be': An Account of the Sydney International Exhibition, 1879 (Unpublished MA Thesis, University of Sydney, 1983); Shirley Fitzgerald, 'The Garden Palace and Sydney's International Exhibition 1879' in Leonore Coltheart (ed.), *Significant Sites: History and Public Works in New South Wales* (Sydney: Hale & Iremonger, 1989), 67-95.

31 See Marianne Doezema, 'The Clean Machine: Technology in American Magazine Publication', *Journal of American Culture*, 11(4),(1988), 73-91.

32 Henry Chardon, 'L'Exposition de 1900', *Revue de Paris*, 1886, quoted in Rosalind Williams, *Dream Worlds: Mass Consumption in Late Nineteenth-Century France* (Berkeley: University of California Press, 1982), 58, 59.

33 Indeed exhibition developers had to tread a fine line between providing goods of interest to the public and looking too like a bazaar. Members of the Royal Agricultural Society

initially allowed in Sydney's annual Royal Agricultural Society Exhibitions, they were prohibited after 1870.[35] However, by the Centennial International Exhibition in Melbourne nine years later, they were expressly requested 'so as to facilitate the judgement of the jury, as well as for the information of visitors'.[36]

Thus, whilst the apple peeler and the egg beater might not have the physical presence of the Corliss engine, they were on display and accessible to far greater numbers of people than previously imagined possible. Australian attendances at local exhibitions were truly astonishing: 268,634 people visited the 1866 Intercolonial Exhibition in Melbourne;[37] 124,375 the 1870 Royal Agricultural Society exhibition in Prince Alfred Park;[38] whilst there were 1,117,563 attendances at Sydney's first International Exhibition, and 1,329,297 at the Melbourne International Exhibition the following year.[39] Furthermore, as is clear from contemporary engravings, a substantial proportion of these visitors were women. Although women were invariably portrayed as accompanying men, Ada Cambridge's experience of going both alone and in company with female friends, as well as with her husband and children, must have been fairly common (Plate 18). Indeed since the exhibitions were open principally during working hours, women would have been the main visitors during the day.

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complained in the 1870s of the 'shop element' in their exhibitions. *Sydney Morning Herald,* 22 January 1880 in Newspaper Cuttings, Volume 214, Mitchell Library, State Library of New South Wales. A visitor to the Perth exhibition voiced a common complaint when he wrote 'It was, in reality, a large bazaar, and nothing else'. The Diary of O. P. Stables, Battye Library MS., State Library of Western Australia.

34 See Asa Briggs, *Victorian Things* (Harmondsworth: Penguin Books, 1990), 71.

35 In 1863 the regulations stated that each article must have 'the selling price ... complete and in good working order'. *Journal of the Royal Agricultural Society of New South Wales,* 15 May 1863, 3. In 1870 the regulations specifically stated that price tags could not be attached to goods. *Journal of the Royal Agricultural Society of New South Wales,* 15 July 1870, 169.

36 *Official Record of the Centennial International Exhibition, 1888-1889* (Melbourne: Sands & McDougall, 1890), 58.

37 *Ibid.*, xliv.

38 *Report of the Canadian Commissioner, op. cit.*, 39.

39 These attendances were particularly remarkable in light of the population which in New South Wales in 1879 was a mere 650,000. However the same extraordinary number of attendances characterised other Australian international exhibitions. Both Melbourne in 1880 and Adelaide in 1887 attracted more than double their populations in visitor numbers. *Official Record, op. cit.*, 126, 127.

The importance of women both as the principal domestic consumer and the main exhibition visitor is evident in the sheer amount of advertising taken out by manufacturers and retailers of domestic goods in exhibition publications. The April 1875 issue of the *Royal Agricultural Society Journal* had eighteen pages of advertising: the 'Little Wanzer' sewing machine took up one and a quarter pages; the 'Britannia' sewing machine one and a half pages; Lassetter & Co., 'wholesale, retail and export ironmonger' and Victoria House Farmer & Co. a page each; and the Hyde Park Furniture Bazaar two-thirds of a page.[40] All the catalogues and 'records' produced for the International Exhibitions had extensive advertising, much of it directed at the domestic consumer. The organisers of Melbourne's 1888 exhibition went so far as to sell space in their catalogue, 'anything beyond the ordinary description of the exhibit, together with the name of the exhibitor, must be paid for at the rate of five shillings per line.' Some companies — like Henry Loveridge & Co., manufacturers of iron, tin plate and japanned wares — took out almost a whole page, providing an heroic image of their factory with detailed lists of their products underneath.[41]

In addition, manufacturers and retailers produced an ever increasing range of 'giveaways' from trade cards, to souvenir catalogues, fans and calendars, all targeting women consumers. At Melbourne's Centennial International Exhibition, the ironfounders T. & C. Clark gave away a miniature catalogue that combined details of their product range with short stories intended to reinforce the company's market position. 'Death in the frying pan' was one such story, detailing the unfortunate results of cooking with enamelware contaminated by lead, antimony and arsenic.[42] Brightly coloured and frequently amusing, trade cards were keenly collected by visitors to the exhibitions (Plate 19).[43] The American journalist, Mrs Dall, recalled their popularity at the 1876 Exhibition in Philadelphia:

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40 *Journal of the Royal Agricultural Society*, April 1875, 140-146.

41 *Official Record, op. cit.*, 67.

42 T. & C. Clark & Company, *Miniature Pattern Book for Melbourne Exhibition* (Melbourne: T. & C. Clark, [1888]), n.p.

43 For a history of the trade card see Robert Jay, *The Trade Card in Nineteenth-Century America* (Columbia: University of Missouri Press, 1987). See also Deborah A. Smith, 'Coaxing the Consumer: Givaways and Gimmicks, 1890-1930' in Glenda Dyer and Martha Reed (eds), *The Consumer Culture and the American Home, 1890-1930: Edited Proceedings from the Second Annual McFaddin-Ward House Museum Conference* (Beaumont: McFaddin-Ward House, 1989), 11-17.

> [in June] I had carried away beautiful advertising cards by the score, and made wonderful scrap-books for my grandchildren.[44]

Trade cards were particularly useful as a promotional tools for gadgets and domestic appliances, since the obverse could be used to illustrate the product, whilst the reverse provided endorsements, testimonials and details of size and price.[45] William Leach points out in *Land of Desire* that trade cards were a conscious attempt by businesses to associate their product with luxury, pleasure, fantasy and faraway places. They marked the beginning of the association between advertising and the creation of 'other worlds' to which the purchase of a product would gain entry.[46]

The positive messages of advertising were reinforced by demonstrations of working machinery. Although, typically, these were major new industrial technologies — like the Corliss engine that featured at Philadelphia in 1876, or the Whittier steam passenger elevator at Sydney three years later — the needs of the domestic audience were also addressed. The 1888 Melbourne exhibition featured a wide range of demonstrations by manufacturers of processed food: H. Faulder & Co. demonstrated 'lollie' and sweetmeat manufacture and fruit preserving from 11 am. to 9 pm. daily; between 10 am. and 5 pm. on Mondays and Tuesdays Victorian cheddar cheese was made; and on Wednesdays and Thursdays there was buttermaking. Small gadgets also featured. In the British Machinery Annex, a potato masher and parer was demonstrated daily from 10 am. to 10 pm., Bratby and Hinchcliffe showed their 'patent Ice Freezing Machines' at work, while in the Victorian Annex, J. Parker and Co. continuously demonstrated their apparatus for instantly heating water and J. Lovelock showed their sausage making machine at work.[47] Contemporary accounts indicate that such exhibits were always popular.[48] As the Commissioners noted:

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44 *Letter No. XIX, Letters from Mrs Dall to the Editor of the New Age, Philadelphia,* 1876 Newsclippings, Hagley Library and Museum, Wilmington.

45 Although no Australian collection of trade cards survives to equal that of the Warshaw Collection of Business Americana at the Smithsonian Institution, sufficient numbers can be found in public collections to indicate their popularity.

46 William Leach, *Land of Desire: Merchants, Power, and the Rise of a New American Culture* (New York: Pantheon Books, 1993), 44.

47 *Daily Official Programme: Centennial International Exhibition Melbourne, 1888-1889,* Nos. 12-111 (14 August-December 1888).

48 Susan Strasser found that the popularity of demonstrations was evident in the amount of money corporations spent on them. At the 1893 Columbian Exposition in Chicago major corporations spent between $US20,000 and $US30,000 on their displays. One Missouri

> Machinery in motion ... was without doubt the most interesting portion of the industrial section to the general public, who seemed never to weary of watching the production of the various articles manufactured.[49]

But, whilst the exhibitions pioneered many of the selling techniques that would later feature in the department stores, and were highly popular among visitors, they also suggest that selling to 'Mrs Consumer' remained in its infancy. No attempt was made to gather household goods into a single place. The organisation of the exhibition — first into national courts, then into departments and groups — served to group them according to place of manufacture and material, rather than to suit consumer convenience. Women were therefore obliged to cover huge distances to examine even the most mundane kitchen utensils. Thus at the 1879 International Exhibition, 'porcelain for table and toilet use' was presented quite apart from the dressers on which it would be displayed (which came under 'furniture and objects of general use in construction and in dwellings') and the floor covering on which it might have stood ('yarns and woven goods of vegetable or mineral materials').[50] A writer to the women's newspaper at the Centennial Exhibition pointed out that:

> Those most interested in this class of exhibits have to spend much time looking them up, for they are scattered through various buildings. A Housekeeper's Department, a collection comprising the various improvements of household and kitchen utensils would have been very serviceable and attractive.[51]

This suggestion was not taken up, and although the 'log cabin' became a feature of American exhibitions — illustrating pioneering 'domestic life and habits'[52] — no attempt was made to present the 'ideal kitchen' until the 1930s.[53]

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miller employed Nancy Green, a former slave, to portray 'Aunt Jemima' who stood next to a giant flour barrel, singing, flipping sample pancakes and telling tales of bygone days in the slave South. The result was over 50,000 merchants' orders from the Exposition. Susan Strasser, *Satisfaction Guaranteed: The Making of the American Mass Market* (New York: Pantheon Books, 1989), 181-183.

49 *Official Record, op. cit.*, 228.

50 *Sydney International Exhibition, 1879: Regulations* (Sydney: Government Printer, 1879), 10, 11.

51 *The New Century for Women*, 11 November 1876, 175.

52 Mrs Dall thought the log cabin more of a museum than a home, 'for no home since the world began ever used the same or even a similar assortment of articles'. *Letter No. VIII. Letters from Mrs Dall, op. cit.*, np. Pioneer huts do not make an appearance in Australian exhibitions until the sesquicentenary in 1938. See Kimberley Webber, 'Constructing Australia's Past', *Proceedings of 1986 CAMA Conference, Perth, 1986* (Perth: CAMA, 1987), 155-174 at 169, 170.

53 In 1934 Westinghouse built the 'Home of Tomorrow' in Mansfield, Ohio, featuring a kitchen with twenty-one different appliances. During World War Two the 'Day After Tomorrow's Kitchen' toured American department stores with a dazzling array of appliances.

A factor that further reduced the impact of smaller domestic appliances at the exhibitions was their method of display. Whilst expensive items like pianos and sewing machines were presented in environments of heightened domestic luxury — featuring velvet draperies, large mirrors and plush carpets — the more utilitarian the object, the more utilitarian was its display. Cooking stoves were lined up in rows and gadgets and utensils presented in much the same way as they would have been found in an ironmongery store. Not surprisingly, some visitors complained of the 'bleak look which characterises most of the courts, and the monotonous warehouse-like arrangement of the exhibits.'[54]

For this reason, it would be a mistake to conclude that women visitors embraced the positive dialectic of the machine that was offered, and with that became enthusiastic consumers of 'the new'. Indeed a common characteristic of women's published descriptions of the exhibitions, is the absence of reference to anything domestic. In her description of the Great Exhibition, Mrs Martyn stops before such exhibits only to quickly move on again with the assurance that:

> we could, at the most, only give a dry catalogue of inventions and implements, which, however valuable they may be on the farm, or in the kitchen, would possess little interest for the general reader, who probably prefers results, to a description of the means by which they are brought about. We shall therefore devote the remainder of this article ...[to] the Picture Gallery.[55]

Likewise, Mrs Dall's letters pass quickly over household gadgets and utensils in favour of what she perceives as the more interesting national courts and art exhibitions. The very 'escapist' atmosphere created by such 'palaces of pleasure' acted against visitors pursuing more practical matters. Ada Cambridge might take her children to the machinery demonstrations, but when by herself she preferred listening to Wagner.[56]

See Brian Horrigan, 'The Home of Tomorrow, 1927-1945', in Joseph J. Corn (ed.), *Imagining Tomorrow: History, Technology and the American Future* (Cambridge, Mass.: MIT Press, 1986), 137-163. See also Patricia Brewer, ' "We Have Got a Very Good Cooking Stove": Advertising, Design and Consumer Response to the Cookstove, 1815-1880', *Winterthur Portfolio*, 25(1),(1990), 35-54.

54 *Illustrated Sydney News*, 15 August 1887, 11.

55 Mrs S. T. Martyn, *A Day in the Crystal Palace*, Warshaw Collection of Business Americana MS., Smithsonian Institution.

56 Ada Cambridge, *Thirty Years in Australia* (1903)(Sydney: University of New South Wales Press, 1989), 156. Similarly, in her short stories and novels that deal with the exhibition no mention was made of household gadgets or appliances. See Ada Cambridge, *A Woman's Friendship* (1889)(Sydney: University of New South Wales Press, 1988); *The Three Miss Kings*

B. Creating Desire: Department Stores and Mail Order Catalogues

Although goods could be — and were — sold from the exhibition floor, the manufacturers' intent was to create a desire for their product, and it was expected that this desire would be met by retailers. During the second half of the nineteenth century, retailers were being 'revolutionized' along with the range of goods available and the selling methods used to promote them.[57] Firstly, there was an enormous increase in the amount of retail trade. Barbara Little has estimated that in the 1880s alone, the number of retailers in Sydney increased by seventy-eight per cent. Over the next three decades, income generated from retailing easily outpaced population growth, increasing almost fourfold from £1.5 million in 1882 to £5 million in 1914.[58] By the end of the nineteenth century far more stores were selling far more goods and, at least for the middle-classes, shopping had become an occupation in itself. Indeed, an often remarkable feature of women's diaries from this time are the number of references to shopping. Although working hard as a journalist, Ethel Turner went 'to town' at least once a week.[59] Surviving household accounts from one

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(1891)(London: Virago Press, 1987). See also Margaret Bedstock and Louise Wakeling, *Rattling the Orthodoxies: A Life of Ada Cambridge* (Ringwood: Penguin Books, 1991). Ada Cambridge's preference for music was a common characteristic of the exhibition visitor, a fact borne out by the far higher attendances on days with concerts than on those without. As one newspaper reported, 'the greater portion of those passing the turnstiles seem to be content with a stroll up and down the Avenue of Nations, and a seat at one of the concerts'. *Illustrated Sydney News*, 29 November 1888, 28. Likewise *The Building and Engineering Journal* reported of the same exhibition: 'The mere inspection of exhibits ultimately becomes tiresome .... while there will always be a large number attracted to the show for the sake of solid information, a far larger proportion go for mere amusement, with a view more of seeing others and perchance being themselves seen.' *The Building and Engineering Journal*, V(225), 29 December 1888, 587.

57 For a history of retailing in Australia see Beverley Kingston, *Basket, Bag and Trolley: A History of Shopping in Australia* (Melbourne: Oxford University Press, 1994); Gail Reekie, *Temptations: Sex, Selling and the Department Store* (Sydney: Allen & Unwin, 1993); Frances Pollon, *Shopkeepers and Shoppers: A Social History of Retailing in NSW from 1788* (Sydney: Retail Traders Association of NSW, 1989). For France see Rosalind H. Williams, *Dream Worlds: Mass Consumption in Late Nineteenth Century France* (Berkeley: University of California Press, 1982). For the United States, see Susan Porter Benson, *Counter Cultures: Saleswomen, Managers and Customers in American Department Stores* (Urbana: University of Illinois, 1988).

58 Barbara Little, Retail Trade Distribution in Sydney, 1880-1914 (Unpublished PhD Dissertation, University of Sydney, 1979), 26, 53. The population in Sydney in 1881 was 220,984 and in 1911, 629,503. Wray Vamplew(ed.), *Australians: Historical Statistics* (Sydney: Fairfax, Syme & Weldon Associates, 1987), 41.

59 See, for example, Ethel Turner's Diary entries for 3 April, 7 April, 13 April, 15 April, 22 April, 1891 in Philippa Poole (ed.), *The Diaries of Ethel Turner* (Sydney: Collins, 1987), 51-53. See also Kingston, *op. cit.*, 50.

Sydney family in the 1880s reveal trips to David Jones every two or three days.[60] This contrasts markedly with a generation earlier: shopping was never mentioned by Frances Macleay in her letters to her brother from 1830s Sydney and only rarely by Rachel Henning in the 1850s; Georgiana McCrae mentions shopping only twice in the first nine months of her residence in 1841 Melbourne.[61]

Secondly, shops themselves were changing. By the 1880s, small specialist shops were being replaced by large 'general' stores. In her study of Sydney's 'big stores', Gail Reekie has shown how these rose from smaller establishments such as drapers and ironmongers which, from the 1880s, gradually expanded their retailing lines to become 'universal providers'.[62] As Richard Twopenny remarked in 1883:

> Trades are much more comprehensive than in England. A large Melbourne draper will sell you anything, from a suit of clothes to furniture, where he comes into competition with the ironmonger, whose business includes agricultural machinery, crockery and plate .... their shops are quite among the sights of Australia. Nowhere out of an exhibition and Whitley's is it possible to meet so heterogeneous a collection.[63]

With the shop owner no longer dealing directly with the public, the opportunities to haggle over prices disappeared and a standard pricing system emerged. This change was particularly significant for gadgets since it brought them out of the ironmongery stores — where they were part of a general collection of tools and equipment — into the far more lavish environment of 'palaces of pleasure' like Anthony Hordern's. Not only were they displayed in a more consciously aesthetic manner; they were also given far greater

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60 For example, during the month of October 1885, four ladies collars were purchased on the 13th; a black cashmere costume on the 17th, a ladies vest on the 21st and three pairs of black hose two days later. Robert Percy Simpson Papers, Mitchell Library MS., State Library of New South Wales.

61 Beverley Earnshaw and Joy Hughes (eds), *Fanny to William: The Letters of Frances Leonora Macleay, 1812-1836* (Sydney: Historic Houses Trust, 1993). See, for example, Rachel Henning to her sister Etta, 13 August 1862, 'we shop all day .... It is like going to Australia over again' in David Adams (ed.), *The Letters of Rachel Henning* (Harmondsworth: Penguin Books, 1979), 88. See also Georgiana McCrae's Diary entries for 20 August and 9 December 1841 in Hugh McCrae (ed.), *Georgiana's Journal: Melbourne 1841-1865* (Sydney: Angus & Robertson, 1992), 41, 52.

62 See Gail Reekie, Sydney's Big Stores 1880-1930: Gender and Mass Marketing (Unpublished PhD Dissertation, University of Sydney, 1987); Gail Reekie, 'The Sexual Politics of Selling and Shopping' in Susan Magarey, Sue Rowley and Susan Sheridan (eds), *Debutante Nation: Feminism Contests the 1890s* (Sydney: Allen & Unwin, 1993), 59-70.

63 R.E.N. Twopenny, *Town Life in Australia* (London: Elliot Stock, 1883), 12.

importance and transformed from being regarded as 'tools' to something much more grand.

Department stores quickly grew to dominate Australian retailing. Gail Reekie has estimated that between fifteen and forty per cent of total household expenditure was allocated to goods sold by them. Although government regulation of shop trading hours did not occur until the *Early Trading Act*, 1899, the increasing reliance on department stores served to reinforce the new role of women as consumers. Unlike the smaller, specialist stores, the large department stores had late night trading on only one night a week (Friday), which meant that most of the time women were their principal (if not their only) customers. [64] By 1927, it was estimated that Australian women spent three times as much money as men on consumer goods.[65]

If the art of retailing became the art of cultivating and satisfying women customers, the move away from small specialist stores to 'universal providers', and the increasing dominance of women in consumer transactions, directly benefited the sale of gadgets and other small domestic goods. It is clear from contemporary photographs of hardware and ironmongery stores that it was much easier to find things in the department store — which favoured an orderly arrangement of goods — than in local stores. Contemporary photographs of ironmongers reveal a jumble of goods out the front: in one, a colonial oven was propped up with meat covers, brooms and a gold panning dish piled on top, while precariously balanced on one side were a collection of cast iron pots. Tin containers were suspended above (Plate 20). By contrast, the sheer size of the department store combined with the large number of staff, meant that order and organisation were essential. In their 1884 catalogue, Anthony Hordern's were careful to point to their ground floor plan, which 'will be found very useful to strangers, enabling them to readily find out the exact

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64 Reekie, Sydney's Big Stores, *op. cit.*, 184.

65 *Ibid.*, 175. This figure are comparable with the United States where it was estimated in 1915 that between eighty and eighty-five per cent of consumer purchasing was done by women. See William Leach, 'Transformations in a Culture of Consumption: Women and Department Stores, 1890-1925', *The Journal of American History*, 71(2),(1984), 319-342 at 333.

position of the various Departments'.[66] As a writer in a contemporary women's journal summed it up, the stores were well lit, had attractive counters, seating for lady customers, and:

> All goods are marked in plain figures, so there is no fear of the often suspected two prices. This gives the impression of straightforward dealing, and an establishment conducted on such a substantial basis is worthy of the patronage which we are glad to hear is being accorded from all parts of the colony.[67]

The promotion of 'modern display style' meant not just that goods were easy to find, but that they were also arranged in enticing ways.[68] As a result, in Neil Harris's phrase, the shop became a 'muscular advocate for the buying drama' and the shop window a major source of temptation. [69] In 1915, an American retailer advised his peers: 'you must offer an easily realized view of something in my Lady's Mind, and she, injected with that invigorant, is going to buy it, wants it, will have it.'[70] But late nineteenth century Australian department stores were not relying only on customers coming through the door. They had also begun a system of attracting custom through mail order catalogues.

Goods were sold by mail in the United States from the late 1860s, but the mail order business was transformed with John Wanamaker's well illustrated catalogues of a 'world of goods'.[71] In the United States by 1900, almost 1,200 mail order concerns were competing for the patronage of over six million customers 'in the most obscure and remote localities, raking the country as with a fine-tooth comb'.[72] By the end of the century, Sears could claim, without too much exaggeration, that 'Nearly everything in merchandise can be found

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66 *Anthony Hordern and Sons' Palace Emporium: Illustrated Catalogue* (Sydney: Anthony Hordern and Sons', 1884), 3.

67 *Australian Woman's Magazine and Domestic Journal,* 3(1),(April 1884), 774.

68 For a discussion of the introduction of display methods into retailing see Leach, *Land of Desire, op. cit.*, 39-90.

69 Neil Harris, 'The Drama of Consumer Desire', in Mayr and Post (eds), *op. cit.*, 189-216 at 200.

70 Quoted in Leach, 'Transformations', *op. cit.*, 325.

71 For a history of the mail order catalogue see Thomas J. Schlereth, 'Country Stores, Country Fairs and Mail-Order Catalogs: Consumerism in Rural America' in Dyer and Reed (eds), *op. cit.*, 27-46. See also Thomas J. Schlereth, 'Mail-Order Catalogs as Resources in American Culture Studies', *Prospects,* 7 (1982), 141-161; Strasser, *Satisfaction Guaranteed, op. cit.*, 204-221.

72 Quoted in Leach, *Land of Desire, op. cit.*, 44.

in this book'.[73] In 1904, Sears was sending out 2,387,000 catalogues,[74] and two years later was selling ten thousand items a minute by mail order.[75]

In Australia, the mail order catalogue was a hybrid of European and North American types. In her history of Australian advertising, Ann Stephen suggests that the first mail order catalogue was that produced by the paper pattern maker, Madame Weigal, in the 1870s.[76] Australian retailers soon followed their American counterparts, and in 1884 Anthony Hordern's issued its first *Illustrated Catalogue*. From an initial fourteen pages it quickly grew to six hundred by the turn of the century. Describing it as their 'silent traveller', Anthony Hordern's celebrated its almost missionary role:

> passing from point to point; halting everywhere; doing good at every stopping-place; showering blessings and imparting information; dropping useful hints .... THIS BOOK, WHICH IS DESIGNED to instruct people dwelling in the country in the theory and practice of SHOPPING BY POST.[77]

In the wake of its success, other retailers soon followed suit. Grace Bros. began producing the *Model Trader* in 1905 and by 1917, David Jones was producing and distributing 75,000 copies of each issue of its catalogue.[78]

With such geographic and social distribution, the mail order catalogue provided an excellent vehicle for communicating the 'new'. Engravings of products were accompanied by descriptions and model range, providing consumers with a good idea of the cost of a new gadget or appliance, and at least what the manufacturers thought it would accomplish.

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73 Quoted in Strasser, *Satisfaction Guaranteed, op. cit.*, 213.

74 John Hollitz, The Challenge of Abundance: Reactions to the Development of a Consumer Economy (Unpublished PhD Dissertation, University of Wisconsin, 1981), 25. The scale of their business was extraordinary even by the standards of the 1990s. In 1906 Sears opened a new plant in Chicago with a merchandise building housing a clothing factory which could receive a sixty car train. Two thousand people were employed to open and process over nine hundred sacks of mail a day. Sears had its own printing plant and the second largest power plant in Chicago after the Edison company. Strasser, *Satisfaction Guaranteed, op. cit.*, 213. For a history of Sears see Boris Emmet & John E. Jeuck, *Catalogues and Counters: A History of Sears, Roebuck and Company* (Chicago: University of Chicago Press, 1950).

75 A 1920 survey of 787 Wisconsin farm families found thirty-eight per cent were buying an annual average of $58.91 worth of mail order goods. See Thomas Schlereth, 'Country Stores', *op. cit.*, 39. The Sears catalogue was produced for over a hundred years, finally ceasing in 1993 at which time 20,000 people worked in the mail order division which had a turnover of $US3 billion a year. *The Independent*, 26 January 1993, 8.

76 Ann Stephen, Consuming Images: Advertising and the Manufacture of Consumption in Australia, 1880s to 1930s (Unpublished MA Thesis, University of Sydney, 1989), 12.

77 *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1900]), iv.

78 Reekie, Sydney's Big Stores, *op. cit.*, 298.

It saved the potential embarrassment of having to ask a sales assistant an item's price and, with all the information at hand, provided an opportunity for women to discuss its possible purchase with their husbands.[79] An American manufacturer of cooking stoves maintained that the mail order catalogue was an essential part of his business, and a major reason for its success:

> We have been using catalogues in the promotion of our stove business for a great many years and we are positive that our business never would have reached its present gigantic proportions had it not been for the use of the catalogue in promoting sales. It is the up-to-date method; it is the sensible method; and it puts before the customer definite knowledge and he gets a very clear understanding of the stoves he is about to buy so that he buys intelligently.[80]

The author of the regular 'Around the Shops' column in the *Australian Home Journal* advised her 'country cousins' to send for:

> one of the elaborate catalogues issued by this firm [Anthony Hordern], from which she may gather some fragmentary ideas of the enormity of their establishment, and amuse herself with the illustrated novelties displayed therein.[81]

Although for some the mail order catalogue remained a wish book more than a reality, mail order was soon accounting for between fifteen and twenty per cent of retail trading.[82]

But an examination of the means used to promote gadgets in the catalogues and department stores reveals none of the 'romance' that was so important to promotion of the cooking stove and sewing machine. There was no attempt to domesticate the cogs and gears of the apple peeler or the mechanism of the meat mincer, there was no softening of surfaces with jappanning or gilded transfers. Instead, gadgets were presented as unashamedly mechanical. Of all the new things introduced in the second half of the nineteenth century, gadgets were the only ones whose industrial qualities were the major features used to sell them. Indeed, retailers transformed their fairly basic technology into

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79 Deborah Smith has uncovered a surviving example of just such a discussion between a wife and her lawyer husband in Rochester in 1916. While away from home she sent her husband a postcard featuring the 'Perfect' cooking range, followed by the mail order catalogue on which she had scribbled 'This model is fine for us & do get it .... This stove will last a lifetime if we get it and make our living in every way easier'. Smith, *op. cit.*, 14.

80 *Large Profits to the Retailer: How to Add Several Hundred Dollars to Your Yearly Income* (Newark: Wehrle Company, 1907). Warshaw Collection of Business Americana, Smithsonian Institution.

81 *Australian Home Journal*, 2 May 1898, 365.

82 See for example the comments of Arthur Dwyer who loved looking through the mail order catalogues at 'all the wonderful things that people with enough money could buy.' Quoted in Jacqueline Kent, *In the Half Light: Life as a Child in Australia, 1900-1970* (Sydney: Angus & Robertson, 1988), 21. See also Reekie, *op. cit.*, 33.

'science' and encouraged their purchase as proof of consumers faith in the future (Plate 21).[83] Thus in their 1900 *Catalogue*, Anthony Hordern's grouped meat choppers, mincing machines and potato peelers together under the glorious title 'MACHINERY FOR THE HOUSEHOLD/SCIENCE IN THE COTTAGE/FIN-DE-SIÈCLE DOMESTIC AIDS':

> Now-a-days everything is done by machinery, from crushing tons of iron to stoning cherries or raisins. Natural forces are drilled into the service of domestic life, and whether the housewife has potatoes to peel or rats to catch, she may start on the job with the assurance that all the science of the century supports her, and that inventive genius has been puzzling its brains and scratching its head on her behalf.[84]

Yet looking at women's advice literature of the period, and the evidence of insolvency records and auction notices, it is apparent that the 'scientific cottage' had little appeal. Although by 1900 gadgets were both more numerous and more accessible, they were not a high priority when it came to equipping the home. Despite the encouragement of retailers and domestic scientists, women remained far more interested in 'dainty teas' than in the chemistry of cooking, and in objects that would enhance the charms of domestic life rather than challenge it through such 'fin de siècle' domestic machinery.

C. Scientific Management: Women's Magazines and Domestic Guides

In the seduction of selling gadgets and labour-saving appliances generally, women's magazines were well placed to play an important role. Yet, although Australia had a rich, if peripatetic, history of publishing women's magazines, little evidence can be found in surviving examples of any major commitment to science, scientific management or the use of gadgets in the home.

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83 T.J. Jackson Lears, 'Some Versions of Fantasy: Toward a Cultural History of American Advertising, 1880-1930', *Prospects*, 9(1984), 349-405 at 389, 390.

84 *Anthony Hordern & Sons, op. cit.*, 79.

The rise of women's magazines paralleled that of the department store.[85] Although some were produced as early as the 1850s, the first to survive more than six months was the *Australian Woman's Magazine*, published from April 1882. Written, 'by women, for women', its editors hoped that 'it may be the exponent, the counsellor, the friend of our Australian sisters ... one to amuse while it consoles, to entertain while it instructs.'[86] Like most women's magazines of the era it focussed on fiction and fashionable dress, however each issue also included at least a page of recipes and household hints and a regular column on shopping.[87] Yet, whilst such magazines might provide advice on shopping methods — as *The Dawn* put it: 'If you want "rings on your fingers and bells on your toes" we will tell you where they can best be bought'[88] — they neither discussed, nor promoted, the value of machinery in the home.

Indeed, beyond recipes and 'handy hints', it was rare to find any articles pertaining to household matters. Although the magazines encouraged consumption, they did not promote critical consumption. In a rare instance of an article about a specific product — 'How to purchase a piano' in the November 1886 issue of *Women's World* — the author's primary concern was for the retailer, rather than her reader, the consumer. Thus, rather than offering advice as to what to look for, or how to obtain the best price, she referred her readers to a particular store and recommended their three year purchase plan, 'whereby periodical small payments are taken until the whole amount is paid'.[89] This, at a time when 'hire purchase' was of increasing concern and when the authors of domestic guides invariably argued strongly against it. Even *The Dawn* — edited by Louisa Lawson, who was a strong advocate of domestic reform — failed to address the issue of mechanization in the home. The only mention of particular appliances was because of their link to paid advertising.[90] Such considerations undoubtedly led to her recommendation of the 'very

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85 See Maya Tucker, The Emergence and Character of Women's Magazines in Australia, 1880-1914 (Unpublished PhD Dissertation, University of Melbourne, 1975).

86 Quoted in *ibid.*, 63.

87 Among the most successful in the United States was the *Ladies' Home Journal* which by 1893 had a circulation of over 700,000. *Ibid.*, 37.

88 *The Dawn*, 15 May 1888, 4.

89 *Woman's World*, 17 November 1886, 220.

90 For a biography of Louisa Lawson and overview of *The Dawn*, see Brian Matthews, *Louisa* (Melbourne: McPhee Gribble Publishers, 1987).

useful self-wringing mop, now on sale at Wimbles'; and the 'Centrifugal Dish Washer .... This will be a great boon, not only to hard worked mothers and servants but also to those who occasionally find it necessary to do their own housework.'[91] Neither was a key piece of domestic technology, yet these were almost the only references found to specific gadgets.

Thus, although Australian women's magazines had a role in bringing new gadgets and appliances into the home, since this took the form of paid advertising or 'advertorial', they cannot be regarded as a reliable indicator either of what women were interested in, or of what gadgets were popular at the time. But if Australian women's magazines failed to advise and instruct in the proper equipment of the home, this was not the case with the domestic guides that were also a feature of these years. Two aspects are of particular importance to the history of gadgets — firstly, their authors' commitment to scientific management and, secondly, their identification of 'necessary' household equipment.

Originating in the United States in the 1880s, scientific management — which, in the home, became domestic economy — sought to apply the principles of industrial life and, through a rational, methodical and objective approach, raise housework above mere drudgery and make the housewife as much a professional as her husband. [92] It was, in the words of Mrs Wicken (the founding instructor of Domestic Economy at Sydney's Technical College), 'the science which teaches us the right way to manage our households.'[93] Armed with all the knowledge that the latest developments in science, economics and management could bring to bear, the Australian housewife could thereby send out into the community:

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91 *The Dawn*, September 1891, quoted in Tucker, *op. cit.*, 202.

92 In the nineteenth century, there was considerable discussion about correct terminology for scientific management in the home. The names used included domestic science, home science, household administration, household economics, household management, and domestic economy. See Bettina Berch, 'Scientific Management in the Home: The Empress's New Clothes', *Journal of American Culture*, 4 (1980), 410-415; Emma S. Weigley, 'It Might have been Euthenics: The Lake Placid Conferences and the Home Economics Movement', *American Quarterly*, XXVI(1),(1974), 79-96.

93 Mrs Harriet Wicken, *The Australian Home: A Handbook of Domestic Economy* (Sydney: Edwards, Dunlop & Co., 1891), 1. Mrs Wicken was brought out to Australia to set up the Department of Domestic Economy at the Sydney Technical College. See Jean I. Peacock, *A History of Home Economics in New South Wales* (Sydney: Home Economics Association of NSW, 1982), 16; see also James Docherty, *'The Emily Mac': The Story of the Emily McPherson College, 1906-1979* (Melbourne: Ormond, 1981).

> to fight the battle of life husbands, sons and brothers strong and fearless because they come from well-managed homes, where scientific knowledge is brought to bear upon the daily necessities of food and clothing and the comforts so necessary to health. If women would awake to their high mission, and consider it an honour, instead of a degradation to look well to the ways of their households, hundreds and thousands of happy homes would spring up ... and from these would arise a strong and powerful people, ready and able to take a prominent place amongst the nations of the earth.[94]

Over the next forty years, the discipline of home economics would change from being home-centred, and concerned with the science of food, health and hygiene, towards an emphasis on organisation, money management and the consumption of goods and services. Christine Frederick was particularly influential, and through her published articles and books advocated approaching housework just as one would any other business.[95] Yet, despite this change the central tenet was — and remained — that the management of the home was not instinctive to women but rather something that had to be taught. As a contributor to the American *Journal of Home Economics* wrote in 1916, 'It is no more possible for a woman to manage a household instinctively than for a man to succeed in a business he knows nothing about.'[96]

Recent scholarship by Heidi Hartmann and Susan Strasser in the United States and Kerreen Reiger in Australia has speculated as to the reasons why scientific management failed in a domestic environment, and, indeed, was fated to do so.[97] A workforce of one could not reduce the wide range of tasks inherent in household management to fit into Frederick's neat framework of 'industrial efficiency', and attempts to do so could result in absurdity.[98]

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94 Wicken, *op. cit.*, v.

95 Quoted in Susan Strasser, 'The Business of Housekeeping: The Ideology of the Household at the Turn of the Twentieth Century', *Insurgent Sociologist*, 8(1978),147-163 at 153. For a discussion of the work of Christine Frederick see Heidi Hartmann, Capitalism and Women's Work in the Home (Unpublished PhD Dissertation, Yale University, 1974), 183-211. *Australian Home Beautiful* was a particularly keen advocate of scientific management. See for example, Rose Chandler, 'The Home: Some Elementary Steps in the Study of Good Management', *Australian Home Builder*, April 1924, 20, 21.

96 Quoted in Jane Bernard Powers, *The 'Girl Question' in Education: Vocational Education for Young Women in the Progressive Era* (London: The Falmer Press, 1992), 14.

97 Hartmann, *op. cit.*, 190-200; Susan Strasser, 'The Business of Housekeeping', *op. cit.*, 147-163; Barbara Ehrenreich & Deidre English, *For Her Own Good: 150 Years of Experts' Advice to Women* (Garden City: Anchor Books, 1979), 141-182; Laura Shapiro, *Perfection Salad: Women and Cooking at the Turn of the Century* (New York: Farrar, Strauss and Giroux, 1986). For Australia see Reiger, *op. cit.*, 56-82.

98 Take for example Frederick's instructions for peeling potatoes:

1. Walk to shelf adjacent to sink and get pot.
2. Walk to storage, carrying pot and fill it with potatoes.
3. Return from storage, laying pot directly on vegetable preparing surface near sink.

However, it is apparent that, whilst in the years after the First World War, writers like Christine Frederick would be keen advocates of domestic machinery of all kinds,[99] home economists like Mrs Wicken remained far more ambivalent. The commitment of nineteenth century home economists to science was, in general, superficial and the Victorian ideals of thrift and economy in household management acted against major investment in domestic appliances. As a result the very movement that is most often seen as a catalyst for the use of labour-saving technologies in the home, in fact acted against them.

This is apparent in the application of home economics in schools and teacher training colleges. From 1869, training in domestic economy was made compulsory in the New South Wales school system for all female trainee teachers. In 1883 the Minister of Public Instruction recommended compulsory cookery for all girls:

> I cannot feel any doubt that the department will perform a ... public service if it sends out of public schools the future mothers of the country qualified to perform domestic duties connected with the preparation of food so as to combine economy and cleanliness with good cookery for the benefit of the masses of the people.[100]

Although lack of money prevented this happening, home economics had the same broad level of official support in Australia as it did in Britain and the United States. Yet it also experienced a similar level of resistance from pupils. A 1920s American survey found that only 16.5 per cent of high school students were enrolled in home economics courses.[101] Although Sydney University introduced a Bachelor of Science (Domestic Science) degree course in 1925, only two students graduated and the course was discontinued in 1945.[102]

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4. Pick up knife (from nail above this surface).
5. Pare potatoes directly into pail (soiling no surface).
6. Wash potatoes and fill pot with water.
7. Wash and hang up knife (on nail above sink).
8. Walk with pot and lay on stove.

Quoted in Powers, *op. cit.*, 15.

99 Strasser points out that Frederick's endorsement of gadgets, labour-saving devices and prepared foods was strongly influenced by her relationship with manufacturers. Frederick thus argued strongly against buying goods on sale; defended the cost of advertising as raising 'the standard of production' (since it does not pay to advertise a poor product); and in *Selling Mrs Consumer* (1929) provided what Strasser has described as 'a masterpiece of early consumer manipulation'. Strasser, 'The Business of Housekeeping', *op. cit.*, 156.

100 The Hon. W.J. Trickett quoted in Peacock, *op. cit.*, 27.

101 Powers, *op. cit.*, 95.

102 Peacock, *op. cit.*, 74.

Furthermore, an examination of the texts and curricula from Australian domestic science courses reveals that actual commitment to 'science' was quite superficial. In the 1892 syllabus for a one year course in 'Domestic Economy and Cookery' at Sydney Technical College, the majority of student time was spent on food preparation with less than one-sixth being given over to 'science'. In all, some thirteen lessons were spent preparing puddings, cakes and sweets, whilst the 'chemistry of food' was covered in one lesson as was 'arranging household work'.[103] As for the food itself, it generally drew upon old favourites with little evidence of concern for diet, nutrition or calories. Similarly, although the 1890s saw attempts to move Australians away from their traditional 'British' meat diet — notably by Philip Muskett[104] — the Cookery Instruction Cards from the Victorian Department of Public Instruction concentrated on roast meat, grilled chops, rissoles and the correct way to make toast and tea.[105]

Laura Shapiro's work on cooking in nineteenth century America has found the same situation. Whilst teachers at the Boston Cooking School paid due regard to science, they served up straightforward American dishes such as donuts and blueberry pie.[106] Indeed, domestic science courses seem to have been particularly resistant to change. A 1926 survey of senior high school home economics curricula in the United States found that only 4.7 per cent of total class time was devoted to the subject and that 'the home economics program is composed almost exclusively of two subjects — cooking and sewing.' On average, 30.1 per cent of all home economics time was given to cooking, 55.2 per cent to sewing and 1.3 per cent to household chemistry.[107] The experienced Australian cookery

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103 *Calendar of Sydney Technical College for 1892* (Sydney: Charles Potter, 1892), 104-108.

104 Philip Muskett, *The Art of Living in Australia* (London: Eyre and Spottiswoode, 1894), 114-125.

105 *Cookery Instruction Card: Victorian Department of Public Instruction* (Melbourne: Government Printer, nd.).

106 Shapiro, *op. cit.*, 63.

107 Powers, *op. cit.*, 94, 95. The principal of the Girls Commercial High School in Brooklyn, New York, observed: 'We must acknowledge that our homemaking courses do not hold the girls in school; and that they are entirely extraneous to the commercial work and are only of mild interest to the girl who gets enough practical domestic science at home and knows that she will always buy her clothes ready made.' Furthermore, a 1930 survey of American college graduates who had majored in home economics found that many felt inadequate to the task,

teacher, Mrs Fawcett Story, blamed her students for this conservatism. She claimed that they were far more interested in preparing 'dainty meals' than in science:

> As it is, when girls do attend cookery classes for a term or two, it is generally only with the idea of learning to make scones and cakes, nice little supper dishes for company &c, and very rarely, indeed, with the object of making themselves so thoroughly acquainted with the art and science of cookery as to fit them to take charge of households.[108]

Conservative in what was being taught and traditional in the way it was carried out, domestic economy did not encourage either potential homemakers or established ones to embrace new technologies. If Australian women bought gadgets they did so despite their home economics training and not because of it.

Surviving photographs of domestic science classes support this argument. At the Warrnambool Domestic Science School, the students were arranged in neat rows under the school motto, 'Cookery is here elevated into science' (Plate 22). But, apart from the obsessive neatness of the kitchen benches — where boards, bowls and rolling pins were arranged with an almost laboratory precision — there was little evidence of modern equipment and labour-saving appliances. Indeed, the only obvious 'modern' appliance was the gas stove and this was unusual. Surviving plans reveal that as late as the 1930s domestic science classrooms were still being built with wood fuel stoves.[109]

The resistance of Australian women to the appeal of scientific management is further evident in the sales of domestic publications. Cookery books far outsold domestic guides. Of Mrs Wicken's works only the *Kingswood Cookery Book* ran to more than one edition, and it was the 'old fashioned' — and often decidedly un-scientific — works that were the most popular.[110] Thus Mrs Lance Rawson's *Australian Enquiry Book* quickly ran to six

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despite their training. Indeed, the survey's author concluded that their education had served only to give them unrealistic standards. Hartmann, *op. cit.*, 197; Peacock, *op. cit.*, 74.

108 F. Fawcett Story, *Australian Economic Cookery Book and Housewife's Companion* (Sydney: Kealy & Philip, 1900), iv. In 1886 Mrs Fawcett Story had been appointed lecturer and demonstrator in Cookery and Domestic Economy at Hurlstone Training College in Sydney which was training students as instructors of cookery for schools.

109 See plan for Wingham District Rural School Domestic Science accommodation, 1932 in Peacock, *op. cit.*, 63.

110 *Kingswood Cookery* was first produced in London in 1885. Following Mrs Wicken's arrival in Sydney, an Australian edition was published in 1888 and republished in 1891, 1909 and about 1915.

editions,[111] and within seven years the *Presbyterian Cookery Book* had sold 30,000 copies.[112]

For the most part, although the use of labour-saving appliances was a major tenet of nineteenth century home economics, few writers on the subject actually came out in favour of them. Mrs Wicken rarely mentioned gadgets. Although she argued that the equipment of the kitchen ought to be the first priority of the new householder, 'for a cook cannot be expected to send up a good dinner without proper utensils', [113] there was little evidence of any commitment to labour-saving appliances. Indeed, the only appliances mentioned in 'Australian Cookery Recipes and Accessory Kitchen Information' (1893) were agate iron ware, 'a little more expensive in the first place ... [but] unbreakable, and therefore cheaper in the end'; a small sausage machine, 'very necessary'; and a good stove.[114] In *The Australian Home* (1891) she recommended against having too many things in the kitchen: 'it is better to use the simplest utensils, and not to have too many about, or one is apt to get confused'. Indeed, the list of kitchen equipment she provided was notable for the very absence of mention of anything mechanical.[115]

Although Mrs Rawson gave a somewhat more extensive list in *The Antipodean Cookery Book* (1895), there were actually only three gadgets listed — despite the author's enthusiasm for labour-saving appliances:

> In the Bush, where servants come and go like angels' visits, the housewife finds the benefit of the many labour-saving machines now in existence. I can speak from a personal experience of many of them, and can assure my readers that a lady — no matter how unaccustomed to work, provided she be willing to do it — can do the whole of her housework with very little exertion or fatigue to herself if she has the following machines:
>
> 1. A washing-machine
> 2. A wringer
> 3. A mincing machine
> 4. A knife cleaning machine
> 5. Small kerosene stove

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111 The *Enquiry Book* was first produced in 1894 and re-published twice the following year. The sixth edition came out in 1910.

112 *The Presbyterian Cookery Book, op. cit.*, title page.

113 Mrs Wicken, 'Australian Cookery Recipes and Accessory Kitchen Information' in Muskett, *op. cit.*, 251.

114 *Ibid.*, 252, 253.

115 Wicken, *Kingswood Cookery, op. cit.*, 21.

6. Patent egg-beater
7. Scrubbing brush with long handle
8. Brass box iron
9. Mangle
10. A good American stove
11. A chain pot-cleaner[116]

A brief examination of the history of these three — mincing machine, knife cleaning machine and egg beater — provides further insight into Australians' ambivalent response to the machine.

Mrs Rawson particularly commended the mincing machine to her readers, 'about the most useful thing in a kitchen'.[117] Two factors made it attractive: labour-saving and economy (through the 'recycling' of scraps). These machines undoubtedly chopped meat faster than was possible by hand. But the descriptive text used in contemporary advertisements for meat mincers indicated that, as was often the case with new technologies, consumers remained suspicious of their ability to do what they said they would. Thus, advertisements from the American manufacturer Enterprise invariably focused on the claim that the meat mincer would chop meat, would 'make a square clean cut like that of a sharp knife or a pair of scissors'. This was reinforced by a disembodied hand pointing to a cascade of meat emerging from the mincer with the assurance, 'chops exactly as shown' (Plate 21).[118] Such guarantees were directed at the suspicious housewife, and since they remained a feature of Enterprise advertisements until well into the twentieth century, it can be concluded that her reservations were well founded. For since the mincer operated on the principle of a screw blade, powered by a rotating arm, it was inevitable that blunting of the blade or slight malfunction would lead to 'grinding' rather than chopping.

If consumers continued to question the meat mincer's ability to mince meat, its usefulness in re-using scraps was undeniable and was undoubtedly the cause of what success it had. As

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116 Mrs Lance Rawson, *The Antipodean Cookery Book and Kitchen Companion* (Melbourne: George Robertson & Co., 1895), 6.

117 *Ibid.*, 7. Meat mincers had also been recommended in Australia's first cookery book, whose author wrote approvingly of his own 'twenty-five shilling machine'. 'An Australian Aristologist'[Edward Abbott], *The English and Australian Cookery Book: Cookery for the Many, As Well As For The 'Upper Ten Thousand'* (London: Sampson Low, Son and Marston, 1864), 71.

118 See, for example, *Anthony Hordern & Sons, op. cit.*, 447.

Mrs Rawson wrote in *Refer To Me,* 'If economy is necessary, she [the housewife] must learn to make up all cold meats and to utilize cold vegetables and scraps of dry bread, in fact every morsel of food that comes under her hand', and the best means of doing so was with a mincer.[119] However, this interest in thrift was not the result of any enthusiasm for scientific management; rather it reflected a concern with economy and care in money management that had been a characteristic of the domestic ideal since the eighteenth century. But thrift as epitomised by the meat mincer came at a price, and throughout the period meat mincers remained comparatively expensive.[120] Although actual sales numbers are unavailable, the claim by the major British manufacturer Spong that it had sold 200,000 by the 1890s, suggests that they were far from being indispensable to the nineteenth century home either in Britain or Australia. [121] Indeed, no reference could be found to any in the insolvency records and even in the 1920s ownership of a meat mincer was far from universal.[122]

The second gadget on Mrs Rawson's list was a knife-cleaning machine, which though not a 'necessity' was highly desirable, 'every housewife who does her own work knows the constant and wearying trouble of cleaning the knives.'[123] Before the advent of stainless steel, knives needed regular and careful cleaning to keep them bright and unmarked. The labour involved is evident in the instructions given by Ann Cobbett in *The English Housekeeper* (1835). Knives must be cleaned immediately they have been used:

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119 Mrs Lance Rawson, *Refer To Me For Everything: Australasian Enquiry Book of Household and General Information, A Practical Guide for the Cottage, Villa and Bush Home* (Melbourne: Pater & Knapton, 1895), 12.

120 In 1859 the Nye and Lyon meat mincer came in three sizes, priced from one to three guineas. By the 1890s prices had dropped with Anthony Hordern's selling the Enterprise at between 6s.6d. and 75s. See Hardyment, *op. cit.*, 158; *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1895]), 446.

121 Hardyment, *op. cit.*, 159.

122 In a collection of 29 auction notices from the period 1917 to 1937, sixteen kitchens (fifty-five per cent) listed mincing machines. This is particularly significant since these were prosperous middle and upper middle-class homes which typically had well-equipped kitchens. See, for example, *Catalogue of the Contents, Tarrawonga, Toorak: The Property of Mrs J.I. Fisher* (Melbourne, 1934), 22; *Catalogue of the Contents, Burdekin House: The Property of Mrs Alex Hay* (Sydney, 1923), 20.

123 Rawson, *Antipodean Cookery, op. cit.*, 7.

> After bath-brick has been used, dip the handles into luke-warm water or wipe them with soaped flannel, and then a dry cloth ... To preserve those not in daily use from rust, rub with mutton fat, roll each one in brown paper and keep in a dry place.[124]

So Mrs Rawson recommended a small machine that screwed onto the table and had two rollers, 'I had one for years and found it a great comfort; but I do not remember the maker's name.'[125] A comparable machine advertised in *Anthony Hordern's Catalogue* was the 'Perfection' which sold for 25s.6d. Another alternative was the rotary cleaner, the cheapest being the 'Servant's Friend' at seventeen shillings.[126] More expensive than the meat mincer, and without its money saving potential, it was unlikely that the knife cleaner enjoyed as high a level of success. Only later did it become a prominent feature of catalogues when in 1900 the price came down, with the 'Palace' ranging from 'No. 0' at fifteen shillings to a 'No 2' at nineteen shillings. Then it was classified among the 'household indispensables' together with the meat safe and the tin opener. Even so, knife cleaners were not found at all in the nineteenth century inventories surveyed and only one in the twentieth century, at Admiralty House, the contents of which were auctioned in 1931.[127]

By contrast, the third machine on Mrs Rawson's list — the egg beater — was cheap and within the reach of all. Yet, even so, Mrs Rawson did not recommend it unequivocally. It was, she wrote, 'merely optional; for my own part I much prefer a fork.'[128] So conservative were work practices within the home, and so great was the resistance to mechanization that even this, the cheapest and most basic of all gadgets, provoked an equivocal response. Despite her advocacy of the revolutionary potential of the egg beater, Susan Strasser found a similar resistance to mechanical cooking utensils in American domestic guides.[129] It can be concluded therefore that the promotion of science by both American and Australian

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124 Quoted in Hardyment, *op. cit.*, 165.

125 Rawson, *Antipodean Cookery, op. cit.*, 7.

126 See Hardyment, *op. cit.*, 167-169. See also Doreen Yarwood, *The British Kitchen: Housewifery Since Roman Times* (London: B.T. Batsford, 1981), 125-127.

127 There was a Kent knife cleaning machine in the Brushing Room, Admiralty House. *Catalogue of the Valuable Furniture: Contained in Admiralty House, Kirribilli Point* (Sydney: James R. Lawson, 1931), 52.

128 Rawson, *Antipodean Cookery, op. cit.*, 8.

129 Strasser, *Never Done, op. cit.*, 45.

domestic writers reflected contemporary enthusiasm for 'scientism' rather than any real commitment to 'science' and to change.[130]

This is further evident in the impact of scientific management on the content of the domestic guides. In reality, the advice of authors like Mrs Wicken or Mrs Rawson differed little from that given by Mrs Darling in the first Australian domestic guide, *Simple Rules for the Guidance of Persons in Humble Life*. Published in 1837, it laid much the same emphasis on order and cleanliness as the more 'scientific' works written fifty years later. Just as Mrs Wicken concluded the introduction to the *Australian Home* with the advice 'Have a place for everything and everything in its place',[131] so, a half century earlier, 'Mrs Shepherd' had advised her young friend Sarah Brown that there were three rules in housekeeping:

1. Do everything in its proper time
2. Keep everything for its proper use
3. Put everything in its proper place[132]

In the last two decades of the nineteenth century therefore, developments in exhibitions, retailing, advertising and in the promotion of the home as a sphere for science all had the potential to raise the profile of machinery in the home. Yet, if we look at the particular impact of each of these changes it is clear that the 'scientific cottage', so beloved by manufacturers and retailers alike, was still a long way from fruition. Women clung to their traditional ways of doing things and to their traditional foods, and embraced the new only when it helped to reinforce those traditions, rather than sought to revolutionize them.

Conclusion

To their nineteenth century observers, the cogs, wheels, handles and gears of Victorian gadgets represented the wealth of Victorian ingenuity and ingeniousness. Yet the potential

130 Jackson Lears has defined 'scientism' as a 'superstitious faith in the powers of science', Lears, 'Some Versions', *op. cit.*, 389, 390.

131 Wicken, *Australian Home, op. cit.*, 2.

132 Eliza Darling, *Simple Rules for the Guidance of Persons in Humble Life; More Particularly forYoung Girls Going Out to Service* (Sydney: James Tegg & Co., 1837), 13.

purchasers of the meat mincer or egg beater resisted the seductions of exhibitions, department stores and mail order catalogues. Even the strongest advocates of scientific management thought that few gadgets actually made a difference to household work, and most women quietly agreed.

Despite being light, portable and — at least compared to major appliances like the cooking stove and the washing machine — comparatively inexpensive, gadgets did not enjoy anything like universal success. It was not the case, as has been argued by Christine Hardyment in England and Beverley Kingston and Ruth Wajcman in Australia, that labour-saving appliances were sought out by Victorian housewives and became the major catalyst for modernising their homes and their lives. Indeed, any analysis of their acceptance reveals the importance of not relying simply on exhibitions, advertisements and catalogues as indicators of consumption. Instead it is essential to look for actual evidence of use, both in the advice being given by domestic economists and in the evidence of household contents provided by insolvency inventories and auction notices. Once this is done, it is apparent that nineteenth century Australian women resisted the temptations of the 'gourmet pudding spoon — a veritable *multum in parvi*'(sic)[133] — as well as the 'Lightning ice cream freezer ... the best freezer in the market'.[134] Even the far more prosaic meat mincer and egg beater were largely ignored.

It was not simply that women rejected the 'new'. Their response to other nineteenth century novelties — particularly the sewing machine — reveals that they were keen to adopt new technologies but only when those technologies could be accommodated within existing ideals of the home and of family life. Despite all their cogs, wheels, gears and levers, domestic gadgets neither simplified work practices nor improved the quality of domestic life. Perhaps they appealed to men, but men were not meant to use them and had far less opportunity to buy them. It was quite apparent to women that they threatened to bring all the clutter and noise of the factory into the home, with none of the consequent

133 *Australasian Ironmonger,* 1 February 1898, 64.
134 *Anthony Hordern & Sons [1895], op. cit.*, 449.

benefits. Whereas a sewing machine looked like a piece of fine furniture and held the promise of fashionable dress, a meat mincer only offered shepherd's pie.

Plate 17

Novelties.

Mr. John Shorter, 193 Clarence-street, Sydney, has received some further novelties in household ironmongery, manufactured by Gourmet & Co., whom he represents in the colonies. We illustrate two of these, one being the Gourmet



pudding spoon, measuring 12 inches long overall, and possessing a bright double tinned steel blade, shaped and perforated with a turned hardwood handle securely rivetted to it. The article is a veritable *multum in parvo*, and proves its usefulness just when an ordinary spoon or fork is too short, a wooden one too clumsy, and a fish slice too frail or otherwise unsuitable. As a kneader, or mixer of puddings, cakes, &c, it is cleaner and less objectionable than using the hands, and it does its work quickly and effectively, leaving the pastry, &c., light. It is also a waste preventer, and may be used for stirring puddings, custards, blancmanges, porridge, rice, sauces, &c; also for mashing fruits and vegetables, straining fish and eggs, draining potatoes, fish, cutlets, &c., &c. The other article is the pneumatic egg beater, consisting of a rubber force cup, mounted on a metal tube, which is perforated with small holes round its bottom edge. It is used by standing the beater in any cup, glass, or basin containing the egg, and rapidly pressing the rubber up and down with the thumb or finger, the rubber not touching the egg at any time. When the rubber cup is pressed down, the column of

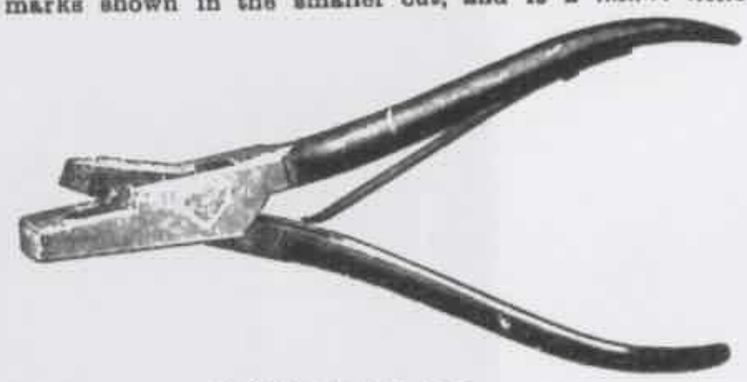


Pneumatic Egg Beater.

air in the tube is compressed, forcing the egg out of the tube through the small holes; when the pressure is released, the rubber recovering its shape, draws the egg back into the tube. The advantages claimed for the utensil are that no mechanical contrivances are inserted in the egg, and that there are no revolving wires, hoops, wheels, or cogs to get out of order, no rattle and clatter, and no corners or crevices to collect dirt and become stale and musty. It may also be used for whipping cream, custard, &c., and can be cleaned in a moment by removing the rubber and rinsing the tube in water.

Keep Your Rooms Cool.—We suggested in a recent issue that cheap punkahs for cooling rooms should be saleable. An apparatus has been lately devised by Professor Ehner Gates, of Washington, America, which for cooling rooms in summer he declares to be capable of being more cheaply operated in summer than a coal stove in winter. It is simply a tall cylinder of galvanised iron, resting in a large basin or pan, and connecting at the top with the ordinary stove-pipe, or with a tube leading out of the window. In the top of the cylinder's interior is a perforated tubular ring, and on a lock being turned in this ring an artificial shower is caused inside the cylinder. The water thus flowing down the sides takes a rapid spiral motion which sucks the air down through the cylinder at a rapid rate, a fine spray inside cooling the air thus entering, raising its humidity to normal, and taking out all dust and bad odors, the water collects in the basin below, from which it is drained off, the cool air escaping through openings just above the water surface of the basin. Some experiments were made at 92 deg. when starting, and 68 deg. when coming out at bottom.

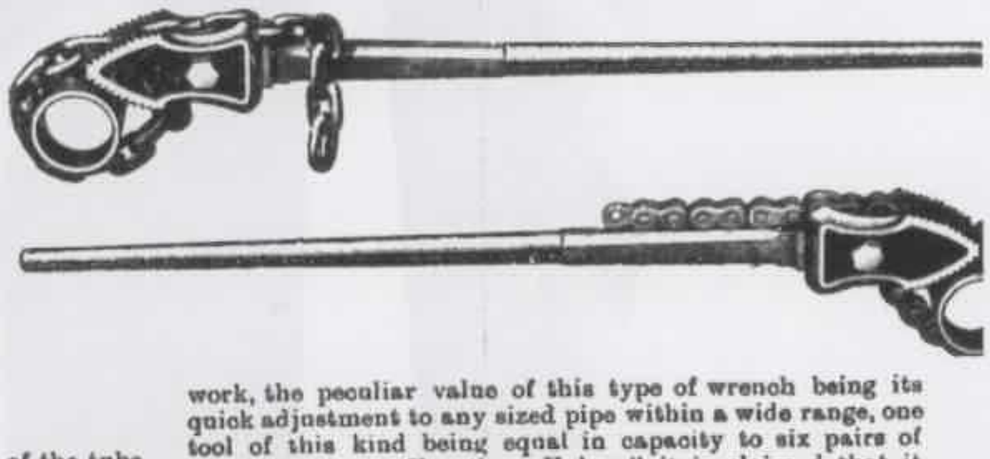
The Sheep Ear Plier shown below is being put on the market by Wynn, Timmins & Co. Ltd., of Birmidgham, England. It snips in the edge of the ear either of the marks shown in the smaller cut, and is a handy little





implement, about 6 inches in length, of bright solid steel. Being machine-made, it can be supplied 20 per cent. cheaper than a similar hand-made tool manufactured by the same firm. They will be sent out in assorted patterns unless otherwise ordered. A sample pair sent us by the makers shows that, while light and neatly made, they are strong and effective in action.

The "Vulcan" Chain Pipe Wrench, which we illustrate, is being placed on the Australasian market by J. H. Williams & Co., of 931 Richards-street, Brooklyn, New York, U.S.A. A growing demand for chain pipe wrenches has arisen in connection with mine, factory, steam, and irrigation



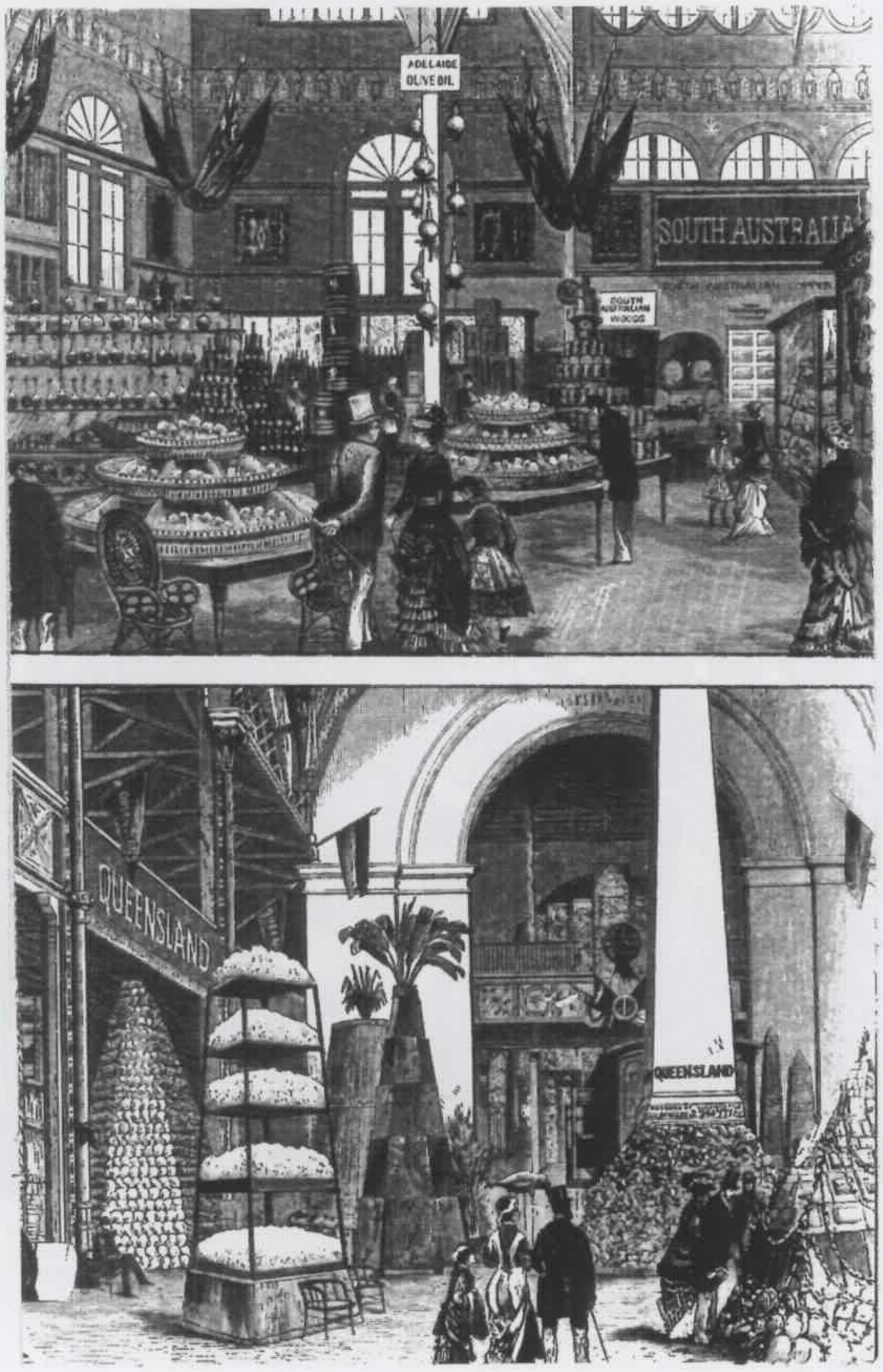
work, the peculiar value of this type of wrench being its quick adjustment to any sized pipe within a wide range, one tool of this kind being equal in capacity to six pairs of common tongs. For the "Vulcan" it is claimed that it combines all the advantages of existing chain wrenches with important features all its own. The most noteworthy innovation, perhaps, is its availability for either a cable or flat-link chain, or both. Both types of chain are hand-made and thoroughly tested, and the change from one to the other is easily effected. The flat-link chain is the stronger, and on straight pipe is preferred; but the cable chain, by reason of its greater flexibility, is better adapted to work on pipe fittings. Being made wholly from wrought steel the tool is strong and durable. The double reversible serrated jaws are of saw temper, so that the teeth can be sharpened when dull by filing without troubling the blacksmith. Being interchangeable, parts can be had by giving the number or size of the tool. They are made in seven sizes, taking pipe from $\frac{1}{8}$ inch to 12 inches in diameter.

A Hay Tedding Machine, that is, a machine for shaking hay, made by the Walter A. Wood Mowing & Reaping Machine Co., was tried at Halswell, in the Canterbury district of New Zealand, on December 14. The trial showed that the machine did the work of ten men with forks. By its use the hay can get a free circulation of air through it immediately after mowing, and stacking can be commenced 48 hours sooner than by the old method.

'Novelties', *Australasian Ironmonger*, 1 February 1898, 64.

A regular feature of *Australasian Ironmonger*, products mentioned on the 'Novelties' page ranged from the practical to the astonishing. Despite its promising shape and clever mechanics, the 'Pneumatic Egg Beater' does not appear to have caught on any more than the 'Gourmet Pudding Spoon'.

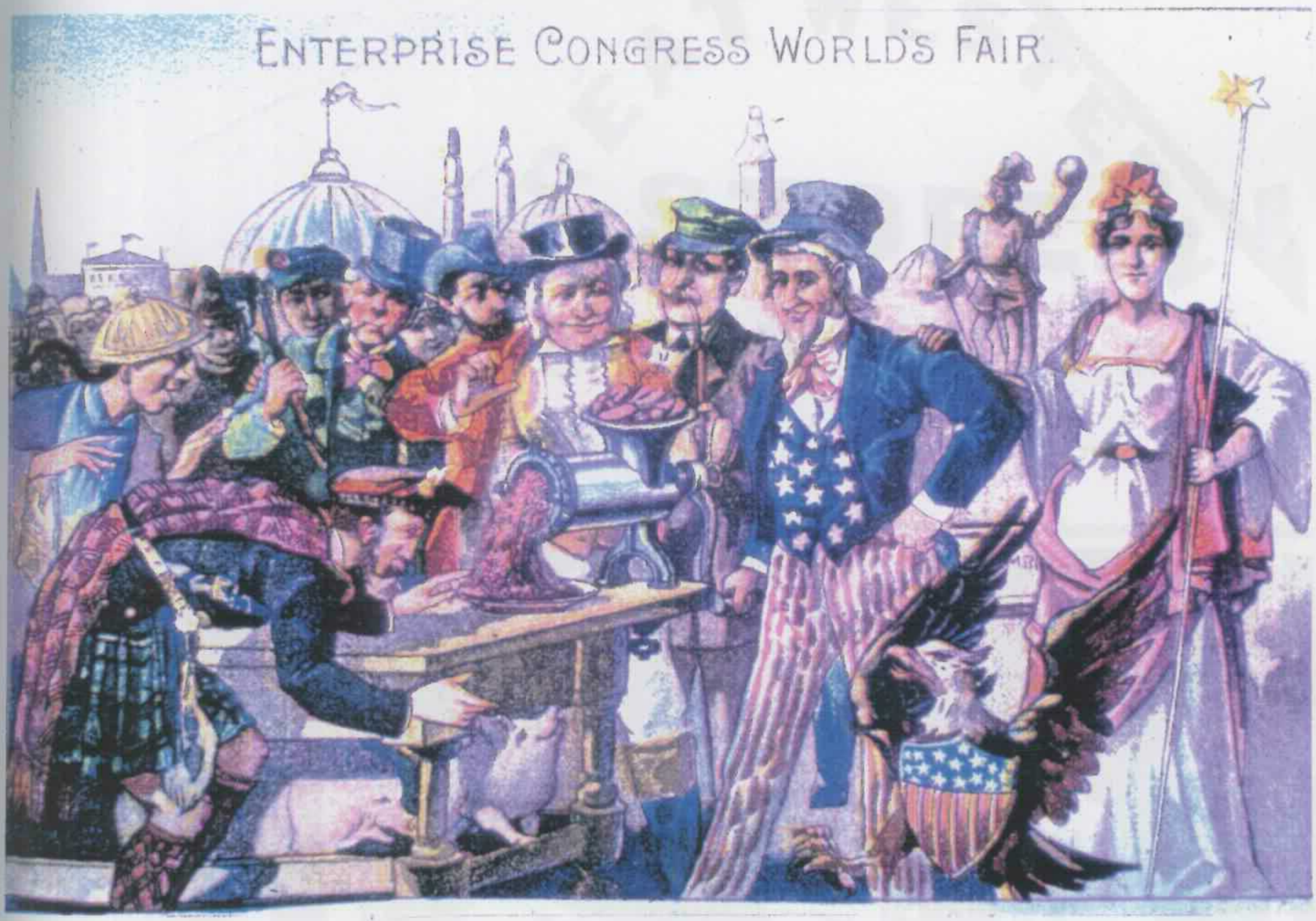
Plate 18



'The South Australian Court' (above) and 'The Queensland Court' (below), *Australasian Sketcher*, 22 November 1879.

In these views of Sydney's 1879 International Exhibition, women visitors clearly outnumber men. Photographs taken at the same Exhibition, show an even greater disparity.

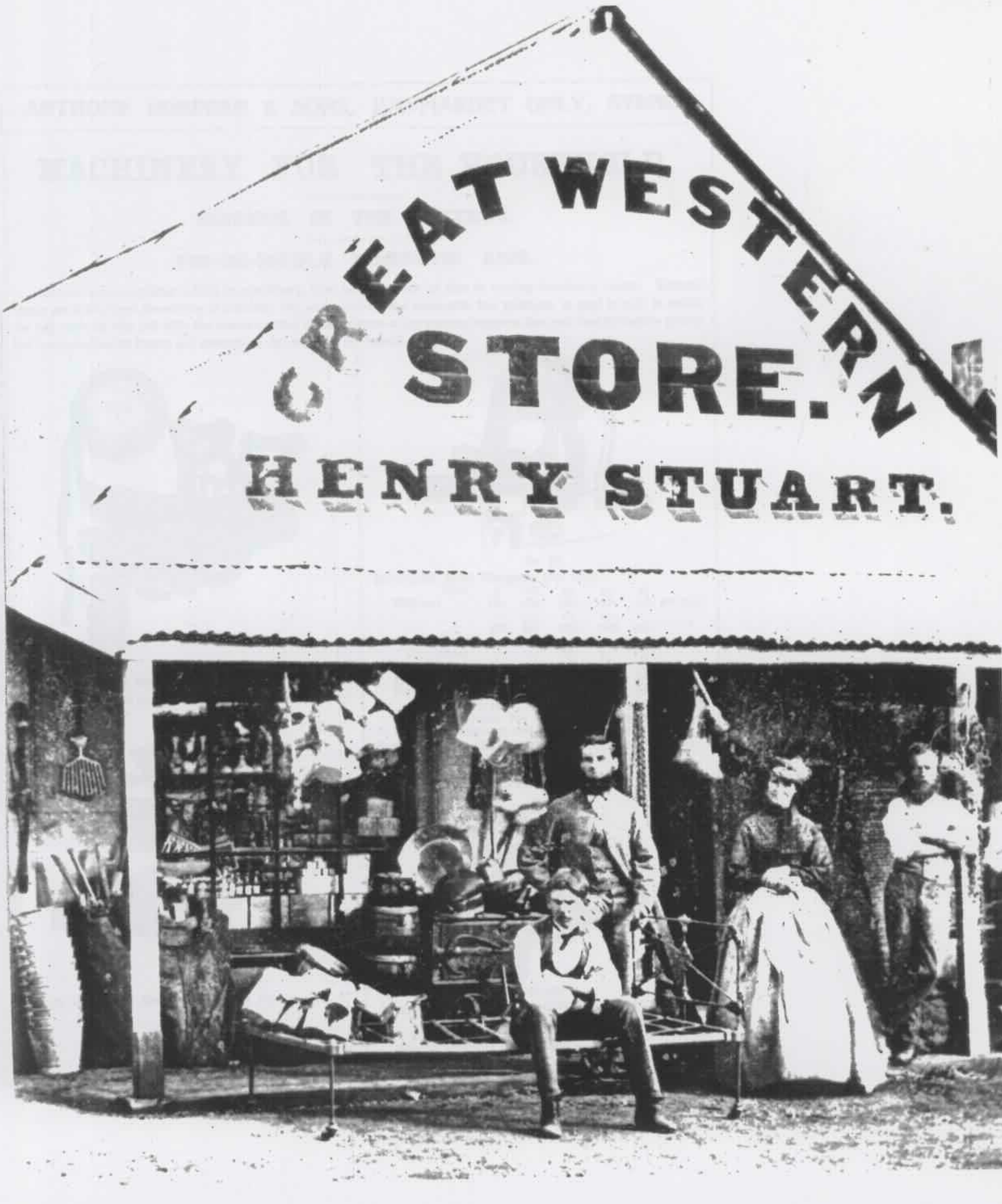
Plate 19



Enterprise Meat Mincer, 1893. Warshaw Collection of Business Americana, Smithsonian Institution.

Observed by Columbia, John Bull congratulates Uncle Sam on this latest example of Yankee ingenuity whilst the nations of the world look on. The meat mincer was particularly fascinating to the Scotsman who was undoubtedly impressed by its 'thriftiness' whilst the pigs seem ecstatic at the prospect of such an ingenious denouément.

Plate 20



Henry Stuart's Great Western Store, Hill End, photographed by Beaufoy Merlin. Mitchell Library, State Library of New South Wales.

Although this store stocked a world of goods, it cannot have been easy to find just what you were looking for. The more orderly arrangement of department stores inevitably made shopping easier but must have also meant the loss of the endless opportunites for discovery suggested by stores such as this.

Plate 21

ANTHONY HORDERN & SONS, HAYMARKET ONLY, SYDNEY.

MACHINERY FOR THE HOUSEHOLD.

SCIENCE IN THE COTTAGE.

FIN-DE-SIECLE DOMESTIC AIDS.

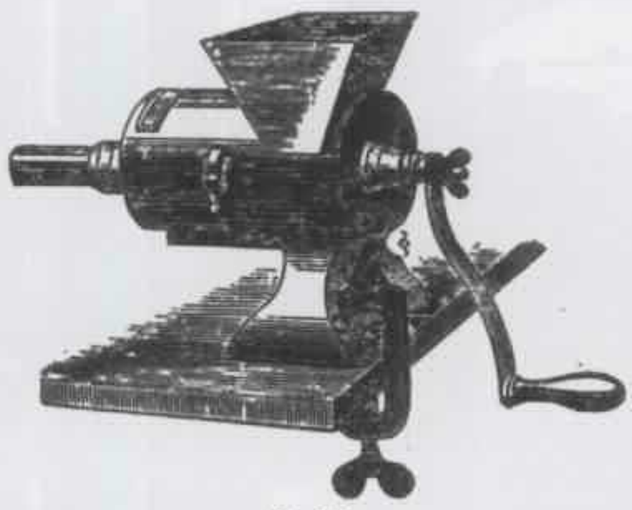
Now-a-days everything is done by machinery, from crushing **tons of iron** to stoning cherries or raisins. **Natural forces** are drilled into the service of domestic life, and whether the housewife has **potatoes to peel** or **rats to catch,** she may start **on the job** with the assurance that all the science of the century supports her, and that **inventive genius** has been puzzling its brains and **scratching its head** on her behalf.



No. 211.

Fruit and Potatoe Peelers (No. 211) 6/6

Saves time and promotes cleanliness. Takes up very little space.



No. 212.

Spong's Household Mincing Machines (No. 212)—

Nos.	1	2	3	4
	—	—	—	—
	5/3	7/6	10/6	21/-



No. 213.

Enterprise Meat Choppers (No. 213)—

Nos.	5	10	22	32	42
Will cut ..	1lb.	2lb.	3lb.	4lb.	5lb. per min.
	—	—	—	—	—
	5/6	8/6	11/-	16/6	42/-
Extra power Fly Wheel	—	—	6/-	7/-	12/3
Fxtra Knives	-/10	1/4	1/8	2/3	3/-
Extra Plates	1/4	1/8	2/-	2/9	8/6
Extra Rings	-/10	1/4	2/-	2/9	5/6

The smaller sizes, Nos. 5, 10 and 22, are used for domestic purposes, the larger ones being suitable for Hotels, Restaurants and Butchers' Shops.

Sausage Filler Attachment, for Enterprise Chopper—

Nos.	5	10	22	32	42
	—	—	—	—	—
	1/-	1/2	1/7	1/11	5/9



No. 214.

Enterprise Fruit, Wine and Jelly Presses (No. 214)— 10/6, 12/6

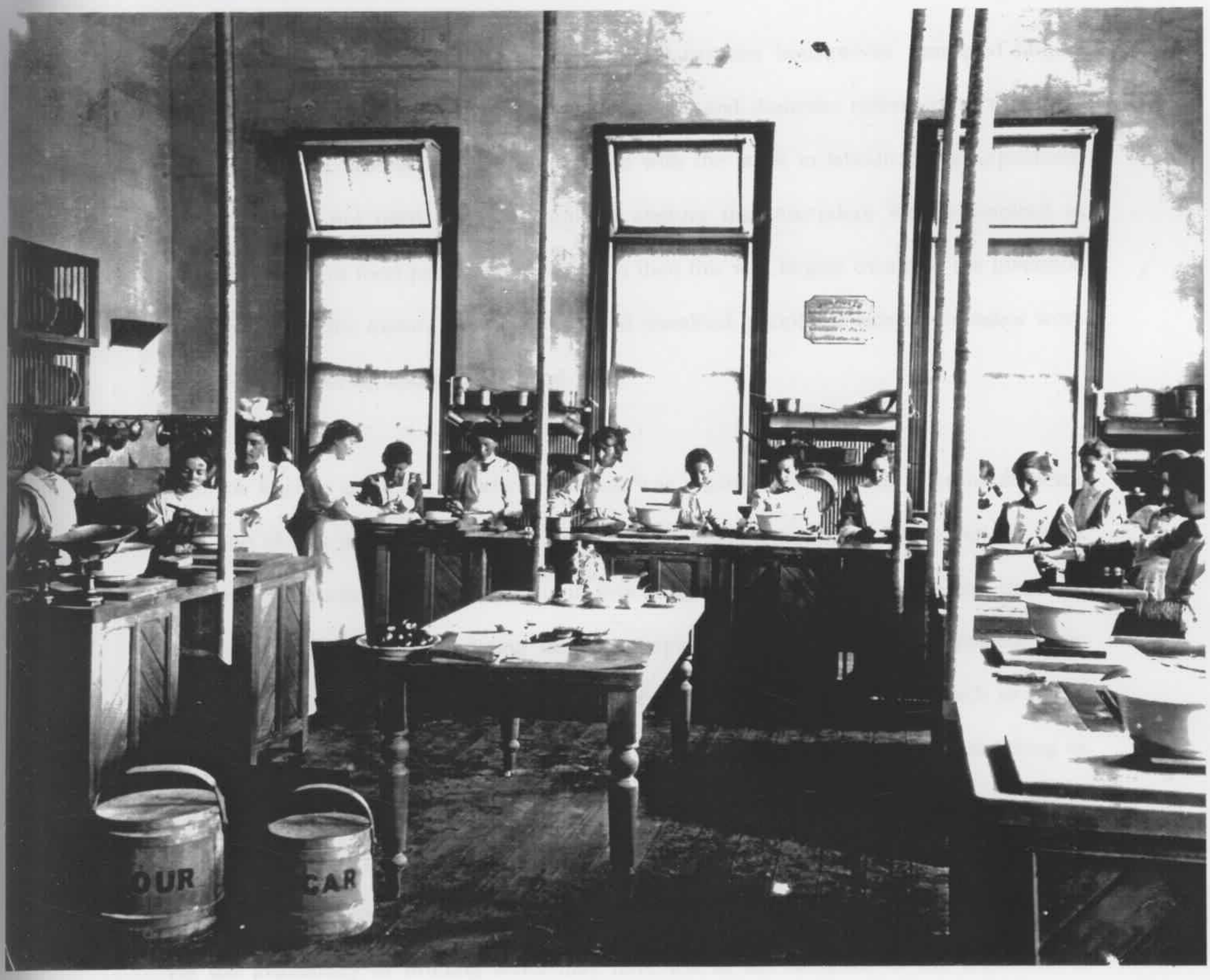
By means of this simple yet scientific machine, the juice is separated from the stones.

70

'Machinery for the Household', *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1895]), 79.

A selection of machinery offered by Anthony Hordern's to transform the home into a 'scientific cottage'. Unlike sewing machines or cooking stoves, gadgets were presented as unashamedly mechanical.

Plate 22



Cookery Class at Warnambool School, about 1890.
National Library of Australia.

Studiously concentrating on the task at hand and with their boards, bowls and rolling pins laid out with an almost laboratory precision, these girls appear the embodiment of their motto, 'Cookery is here elevated into science'. Yet beyond the gas stoves there is no evidence of modern machinery or gadgets. Furthermore, the tea things and cakes arranged on the table suggest that as soon as the photographer has finished, the students and their teacher will engage in the far more appealing ritual of afternoon tea.

IV

Washing Machines: Mechanizing Drudgery

Introduction

As their response to Yankee gadgets reveals, Australian housewives remained largely impervious to the efforts of manufacturers, retailers and domestic reformers to transform their homes into 'scientific cottages' equipped with the latest in labour-saving appliances. In fact, it was not until the mid-twentieth century that Australian women aspired to mechanical aids in food preparation; and even then this was largely owing to the invention of the small electric motor. Gadgets were, and remained, peripheral aids to the major work involved in preparing and cooking food.

After the kitchen came the laundry. Washing was regarded as the most onerous domestic task, and almost universally loathed.[1] For it was not simply washing clothes, but the work involved in gathering the wash, sorting it, procuring water in which to wash and rinse the clothes, wringing them out, drying them, perhaps ironing them, and then putting them away. It involved the manufacture or purchase of a water softening agent (such as soap), and might have included additional cleansing and presentation processes like starching or bleaching.[2] The complexity of the task meant that a single machine could not hope to revolutionize it. In the nineteenth century, change came not from new technology but from new services, in particular the introduction first of running water, and later of hot water. Yet the availability of running water may have led to the dismissal of the laundress or

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1 Analysis of contemporary attitudes to housework by Ann Oakley reveals that washing has moved in women's estimation from being the most disliked task of all, to fourth place (behind ironing, washing up and cleaning). A change Oakley attributes to the electric washing machine; as one of her interviewees recollects, 'At one time I had this scrubbing brush and I used to spend the whole day scrubbing and I used to have a big pan and I used to boil my clothes up in it — it drove me round the bend .... I've got this washing machine now, thank goodness. A washing machine cuts housework really down.' Ann Oakley, *The Sociology of Housework* (Oxford: Basil Blackwell, 1988), 49-55.

2 Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982), 104-124.

meant that the men who previously helped with water cartage (and perhaps carrying the wet wash) now did not help at all.[3]

The introduction of washing machines is therefore a story different from that of the cooking stove or the gadget. Whilst the cooking stove was far from being a universal success, some sense of what Pinch and Bijker describe as 'closure' was reached during the nineteenth century, in that there was general agreement as to the form of the technology. But no such development occurred with washing machines. Indeed, when nineteenth century Australian women wrote of the arrival of a 'washing machine', we do not know to what precisely they were referring. It could have been a wooden tub that was rotated, a metal 'torpedo' that was rocked back and forth, or a simple 'posser' that was used to agitate the clothes.[4]

The history of washing machines also provides a good counter-example to technological determinism. It was quite simply not the case that development proceeded from the original 'idea' through a range of improvements to a final product that was enthusiastically embraced by the consumer. Instead, the multiple solutions offered and refinements made, and the very mixed response of consumers to them, all point to the importance of cultural and social factors in an object's success in that most competitive of environments, the home. The very fact that washing was such a hated task — yet in work practices, technology and traditions remained largely unchanged during the nineteenth century — also says much about the strength of domestic traditions and the response of the home to technological change.

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3 Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983), 11, 12.

4 See, for example, H.A. McCorkell (ed.), *The Diaries of Sarah Midgley and Richard Skilbeck: A Story of Australian Settlers, 1851-1864* (Melbourne: Cassell Australia, 1967), 59, 62, 64.

1. The Necessity of Cleanliness

In Western society, laundry work was always seen as women's responsibility. As an anonymous mediaeval poet wrote:

> A woman is a worthy thing:
> They do the wash and do the wring:
> 'Lulla, lullay' she doth sing;
> And yet she hath but care and wo.[5]

And much of this 'care and wo' can be attributed to the wash itself. There is nothing romantic about doing the wash, and it is not surprising that paintings of women doing such work are rare, and when they do exist, leave no doubt as to the arduous nature of the task. Thus in Vida Lahey's painting, 'Monday Morning 1912' (Plate 23), her two sisters have their sleeves rolled up to reveal muscular arms, and both are hard at work in their laundry in Indooroopilly, Brisbane. One lifts washing out of the steaming copper, whilst the other rubs soap into dirty clothes. They are both bent over their work and while the youth and beauty of her subjects makes the atmosphere 'feminine', it is not an environment of seduction or romance.[6] Similarly in Clara Southern's, 'A Country Wash-House', a woman has her back to the viewer, bent over one of two tubs on a rough-hewn trestle. Piles of laundry are waiting to be washed and in the foreground water boils over an open fire. At the woman's feet lie cans of water which have been carried from a stream or well. Once again it is an image of industry and, whilst the surrounding over-arching gums possess a certain peacefulness, with a track winding off into the distance and the haze of the fire, it is quite apparent that the woman is, at best, only half way through her work, and there will be no time for her to sit and enjoy the scene.[7]

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5 Anonymous, *Oxford Book of Mediaeval Verse* (Oxford: Oxford University Press, 1990), 235.

6 Vida Lahey, 'Monday Morning 1912'. Contrast this with Emma Minnie à Becket Boyd's 'Drawing-Room, The Grange', c. 1875 (Plate 1). A young woman sews trimming onto a skirt, whilst her suitor gazes adoringly at this image of femininity and industry. Both paintings are discussed in Terence Lane & Jessie Serle, *Australians at Home: A Documentary History of Australian Domestic Interiors from 1788 to 1914* (Melbourne: Oxford University Press, 1990), 153, 389.

7 'A Country Washhouse', oil painting by Clara Southern, 1905, Victoria Hammond and Juliet Peers, *Completing the Picture: Women Artists and the Heidelbarg Era* (Hawthorn: Artmoves, 1992), 66.

Yet laundry work had not always been so burdensome; or at least, not as frequent. In sixteenth and seventeenth century Europe, personal and household linen was washed at most once a month, and often at two or three month intervals. Many of the materials used in clothing, such as wool, alpaca, felt and leather could not be washed and standards of personal cleanliness were rudimentary. Indeed, Fernand Braudel argues that between 1400 and 1600, personal hygiene actually regressed in Europe. Baths which had been commonplace in mediaeval Europe became less so and public baths almost disappeared during the 1500s. As late as the early 1800s, undergarments were unknown and frequent washing taken as a sign of poverty. [8] As Flora Thompson wrote in *Candleford Green*:

> It would have been thought poor looking to have had a weekly or fortnightly washday. The better off a family was, the more changes of linen its members were supposed to possess, and the less frequent the washday.[9]

By the close of the nineteenth century, all this had changed. Frequent washing became linked to control, stability and order and was considered essential to 'respectability' (Plate 24).[10] At the same time, the amount of linen in the average household increased dramatically. Thanks to the availability of cheaper and better quality cotton from India and the American south, there was greater use of cotton; whilst the wearing of more clothes, combined with the airborne dirt of industrialising towns and cities, meant that these clothes were washed more often.[11] At the same time, American writers like Catherine Beecher were promoting the 'water cure', which argued that daily bathing was essential to prevent the build up of 'poisons' on the skin.[12] By mid-century, cleanliness had become so important that, as Caroline Davidson has calculated, English labouring families spent the equivalent of half their rent on laundry, and middle-class families, a third.[13]

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8 Fernand Braudel, *The Structures of Everyday Life: The Limits of the Possible,* I(New York: Harper & Row, 1985), 311-333.

9 Quoted in Michal Bosworth, *Australian Lives: A History of Clothing, Food and Domestic Technology* (Melbourne: Nelson, 1988), 31.

10 See Richard L. Bushman and Claudia L. Bushman, 'The Early History of Cleanliness in America', *Journal of American History,* 74(4),(1988), 1213-1238.

11 Belinda Probert, *Working Life* (Melbourne: McPhee Gribble, 1990), 78. See also Margaret Maynard, *Fashioned from Penury: Dress as Cultural Practice in Colonial Australia* (Cambridge: Cambridge University Press, 1984). This issue is discussed in greater detail in Chapter VI.

12 See Faye E. Dudden, *Serving Women: Household Service in Nineteenth Century America* (Middletown: Wesleyan University Press, 1983), 140.

13 Caroline Davidson, *A Woman's Work is Never Done: A History of Housework in the British Isles, 1650-1950* (London: Chatto & Windus, 1983), 136. See also Leonore Davidoff, 'The Rationalisation of Housework' in Diana Leonard Barker and Sheila Allen (eds), *Dependance and Expolitation in Work and Marriage* (London: Longman, 1976), 120-151.

Cleanliness was no less important in the colonies. In the surviving correspondence of Hugh Maxwell, an Irish immigrant who arrived in Melbourne in the 1880s, where much is made of economy, clean clothes take precedence over diet:

> I consider that I can keep myself on 17s. or 18s. a week including washing, never speaking about the beer or tobacco, cigars etc which does not happen to form an important item. I do buy a few apples occasionally to help digestion but the habit of eating apples can be left off at any time.[14]

George Horne, an unemployed clerk of Glebe, went bankrupt in 1890 owing £95 1s. 2d., including a debt of £29 3s. 6d. accumulated over the previous three years for washing, ironing and mangling.[15] In 1860, a New South Wales Committee of Enquiry into the Housing of the Working Classes was particularly concerned about the lack of washing facilities. Within a half century, cleanliness had become so central to civic behaviour that its absence was regarded as tantamount to spiritual decay and social ruin. Witnesses spoke of the 'loathsomeness' of slum housing, where 'inside and out, everything is an object of disgust'.[16] They argued that the inevitable consequence of such dirt was destruction of the family:

> The father, finding all in disorder and confusion at home ... seeks consolation ... at the public house, which is always close at hand. The wife, neglected by her husband, unable with all her efforts to maintain cleanliness and order, becomes dirty in her habits, slatternly in her appearance, generally indifferent to domestic comfort, and probably at last has recourse to that which seals the ruin of her family — the rum bottle.[17]

This newfound enthusiasm for cleanliness across the classes led to an almost fourfold increase in the work involved.

Without running water, gas or electricity, even the simplest wash consumed staggering amounts of time and labour. One wash, one boiling and one rinse used about fifty gallons of water — weighing four hundred pounds — which had to be moved, by hand, from pump, tank or creek to stove and tub. To get the wash done in a day, women had to start early in

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14 Hugh Mackay to his parents, 27 February 1884, quoted in Patrick O'Farrell, *Letters from Irish Australia, 1825-1929* (Sydney: University of NSW Press, 1984), 132.

15 George Horne, Insolvency Records, 10/22708 (1890), File 2558, Archives Office of New South Wales.

16 *New South Wales Parliamentary Papers, Legislative Assembly: Report from the Select Committee on the Condition of the Working Classes of the Metropolis* (Sydney: Government Printer, 1860), 1271.

17 *Ibid*, 1353.

the morning, with a great deal of preparation done beforehand. In her study of domestic practices in England, Caroline Davidson cites examples of farm servant girls in the Yorkshire Wolds who rose at one am and washed until tea time, and of professional laundresses who arrived at their clients' houses before dawn in order to get their work done in a day.[18] Pamela Horn quotes from an advertisement for a housemaid; the successful applicant would have to rise at one o'clock every Monday morning, and wash until five or six o'clock:

> then comes in to do her housework which employs her till 10.30 am. or 11 am. when she returns to the washing till 9 pm. ... and it must be got up and finished in the day.[19]

Not surprisingly, laundry became the most hated of all domestic disciplines. Whenever mentioned, it was invariably in terms of resignation. Writing on 17 May 1841 in her diary, from the new settlement of Australind in Western Australia, Louisa Clifton reported:

> I began the week with a determination to be more than ever active and industrious, and having on Saturday night packed away all my extra possessions in my chest, I felt at liberty to begin washing Mama's and the children's things; what then was my dismay when going to my chest I discovered that the milk pan which had stood on it all night leaked, soaking a great portion of the clean linen I myself had laboured to make so .... I was occupied till dinner in drying and arranging my things, many of which were washed again, and a more fatiguing day I have seldom had, nor a more vexatious occupation; too tired to do anything in the evening.[20]

In his 1860 description of the family's chores, Joseph Elliott referred to washing day as 'the worst day in the week ....[Becky] is generally very tired after it but yet sometimes, she gets her ironing done in the evening!'[21]

2. 'Monday was Wash Day': The Work Process

The method of washing clothes by hand remained virtually unchanged from Roman times.[22] The basic principle was to agitate the cloth in such a way as to loosen the dirt and

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18 Davidson, *op.cit.*, 151.

19 Pamela Horn, *The Rise and Fall of the Victorian Servant* (Gloucester: Alan Sutton, 1986), 70.

20 Louisa Clifton, Diary, 17 May 1841 in Lucy Frost (ed.), *No Place for a Nervous Lady: Voices from the Australian Bush* (Melbourne: McPhee Gribble/Penguin Books, 1984), 56.

21 Joseph Elliott, *Our Home in Australia: A Description of Cottage Life in 1860* (Sydney: Flannel Flower Press, 1984), 81.

22 For a history of laundrywork in Britain see Davidson, *op.cit.*, 136-163; for the United States see Strasser, *op. cit.*, 104-124; Jane C. Nylander, *Our Own Snug Fireside: Images of the New England Home, 1760-1860* (New Haven: Yale University Press, 1994), 103-142. For Australia see

rinse it away. This was done by beating the laundry against a rock, rubbing it over a washboard with a corrugated surface or agitating it up and down in a tub using a dolly or a posser.[23] The only new device to be almost universally adopted in nineteenth century Australian laundries was the washboard, a frame of hardwood filled with corrugated iron, zinc or (later) glass. Commercially manufactured boards were available from at least the 1830s, whilst crude home-made examples were probably produced even earlier (Plate 25).[24] Various substances were used as softening agents — as soap was expensive — including urine, dung and lye (made from wood ashes or ferns).

Mrs Lance Rawson provided a detailed explanation of the correct way to wash in her *Australian Cook and Laundry Book*. After soaking the clothes overnight:

> Start your washing as early as you can next morning. If you are quick you will get a boilerful on before breakfast .... A washing board is a great help to a woman who has her own work to do, but like everything else she must learn how to use it properly or she will scrub the skin off her hands .... As you wash each piece shake it out and put it into the boiler .... When your clothes have boiled the half hour and been properly poked under with the 'pot stick' so that everything has been boiled, they are ready to come out. Place a tub close to the boiler ... drain the clothes ... let them down into the tub, cover with clear cold water and rinse well up and down to get all the soapy water out, then wring out each piece, shake it, turn it, and plunge into the blue water, rinse about in it and wring out again, shake and throw into your basket to be hung out on the line to dry.[25]

Although the *Australian Cook* was published in 1897, only two pieces of technology were mentioned — the washboard and the wringer — and Mrs Rawson significantly assumed that the wash would be done out-of-doors.

In colonial Australia, the burden of the wash was worsened by two factors: the dust and dirt of unmade roads and new settlements, and the perennial shortage of water. Georgina

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Beverley Kingston, *My Wife, My Daughter and Poor Mary Ann: Women and Work in Australia* (Melbourne: Nelson, 1975), 36-37, 67-68.

23 A dolly stick was, as its name suggests, a wooden stick with a multi-pronged 'dolly' on the end, and was used to pound the clothes up and down thereby moving water through them. A posser was a cone shaped metal head with holes in the base attached to a long wooden handle. Like the dolly, it forced the soapy water through the cloth and eased out the dirt. Doreen Yarwood, *The British Kitchen: Housewifery since Roman Times* (London: Batsford, 1981), 141-146.

24 Christine Hardyment claims that the washboard dates from the 1850s, but an 1830s article in the *New England Farmer* refers to the washboard as having been in use for some time. Christina Hardyment, *From Mangle to Microwave: The Mechanization of Household Work* (Cambridge: Polity Press, 1988), 56; Ronald S. Barlow, *A Price Guide to Victorian Houseware, Hardware and Kitchenware* (El Cajun: Windmill Publishing Company, 1992), 342.

25 Mrs Lance Rawson, *Australian Cook and Laundry Book* (Melbourne: J.W. Knapton & Co., 1897), 102-103.

McCrae often complained about the effect that 'wading through the mud' of 1840s Melbourne had on her clothes.[26] Writing from Western Australia in 1833, Fanny Bussell commented:

> clothes out here do wear out dreadfully, stockings especially from the black sand you are obliged to change them three or four times daily and washing so often does not add to their strength.[27]

The situation did not markedly improve for another half century. In Sydney, prevailing 'westerlies' made a particular contribution to the size of the wash.

A worse problem was the shortage of water, and its distance from the house. Recalling her life in 1860s Western Australia, Mrs Edward Millett wrote:

> The inconvenience of occupying a residence where there was not only no water on the premises, but where the nearest well was quite two hundred yards distant, appeared overwhelming to us when we first took up our abode at Barladong. When I learned, however, that many of our poorer neighbours lived at a much greater distance than ourselves from a well, I found that the comfort of our positions exceeded theirs in ... great degree.[28]

Some of these neighbours were forced to send eight miles for water on washing day and, even as late as the 1860s, women were still washing by the river, a practice that had almost disappeared in England:

> When a river pool is within reasonable distance it is customary, in ordinary seasons, to convey the clothes to the water rather than the water to the clothes. A fire is then lighted on the water's edge, and a booth of green boughs erected for the washerwoman, beneath which she stands at her tubs, securely screened from the sun.[29]

Of course, there were some advantages to such 'communal' laundries. Elizabeth King recalled that the informal wash house on the edge of the lake at Teran in Victoria provided an opportunity for much socialising:

> A busy crowd of women and children converged each week with scrub-boards and home made soap. There was gossip and chatter as clothes were soaped and rinsed in the water, children played and the natives came out of their mia-mias along the banks to join the entertainment.[30]

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26 Georgiana McCrae, Diary, 6 August 1841. On 14 August 1841, she went to Spence's 'to buy bargains of drapery .... The footpaths were terrible, and the road, all the way, like a bullock-yard.' Hugh McCrae (ed.), *Georgiana's Journal* (Sydney: Angus & Robertson, 1992), 39, 41.

27 Fanny Bussell's Journal, April 1833 in Patricia Clarke and Dale Spender (eds), *Life Lines: Australian Women's Letters and Diaries, 1788 to 1840* (Sydney: Allen & Unwin, 1992), 219.

28 Mrs Edward Millett, *An Australian Parsonage or, the Settler and the Savage in Western Australia* (1872)(Perth: University of Western Australia Press, 1980), 232.

29 *Ibem.*

30 Quoted in Lane & Serle, *op.cit.*, 389.

Where there was no convenient creek or lake, water had to be carted from tanks — or in the city, pumps — a job that added to the drudgery. As Evelyn Barwick wrote about doing the family's wash at Scone:

> 26 August ... In the afternoon I carried round a lot of water from the tank, filled the copper and put a fire under it, and later on we got the dirty clothes out and soaked them in, ready to wash next morning ....
>
> 27 August We did the washing and damped the clothes, ready for ironing the same evening.[31]

Even in major cities like Sydney, few houses at mid-century were connected to mains water supply.[32] A *Sydney Morning Herald* report in 1852 claimed that 'Half the time of the poor is taken up in obtaining water from pumps, sometimes more than a quarter of a mile distant.'[33] The 1860 enquiry found that living conditions were substantially worsened by the lack of an adequate water supply, a fact that made it impossible for 'a housewife to keep a bad house tidy'. As a local rate collector, Joseph Clayton, reported , 'In many instances the people would be clean if they had the means of keeping themselves so, but water is too expensive.'[34]

After washing, clothes were rinsed in clean water, wrung out by hand, and spread on the ground or over bushes to dry. In city courtyards and back gardens, makeshift clothes lines were stretched between wooden poles. Thus Conrad Marten's 'Sydney from The Rocks' shows a woman pegging out clothes on lines strung between two sticks.[35] S.T. Gill's watercolour of Monsieur Noufflard's house in Bligh Street, Sydney, depicts a maid in a large

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31 Evelyn Barwick Diary, 26 August, 28 August 1889 in Heather Ashford (ed.), *The Diary of Evelyn Barwick* (Scone: Scone & Upper Hunter Historical Society, 1988), 59.

32 Of course, a house did not need mains water to have a water system installed. Catherine Beecher included a simple water fixture and supply arrangement in her *Treatise on Domestic Economy* using water from a well or cistern and by the 1870s such systems of indoor plumbing could be found in a broad range of American housing. See Maureen Ogle, 'Domestic Reform and American Household Plumbing, 1840-1870', *Winterthur Portfolio,* 28 (1),(1993), 33-57. See also May N. Stone, 'The Plumbing Paradox: American Attitudes toward Late Nineteenth Century Domestic Sanitary Arrangements', *Winterthur Portfolio,* 14(3),(1979), 284-309.

33 In 1851, of the 8,000 houses in Sydney only 1,000 were connected to mains supplies. Although the situation improved in succeeding decades, an 1867 Royal Commission on Sydney's water supply found that many heavily populated suburbs such as Balmain, Newtown, Camperdown and Paddington still relied upon wells and water deliveries. David Clark, ' "Worse than Physic": Sydney's Water Supply, 1788-1888' in Max Kelly (ed.) *Nineteenth Century Sydney: Essays in Urban History* (Sydney: Sydney University Press, 1978), 54-65 at 56, 61.

34 Evidence of Joseph Richard Clayton, rate collector for Sydney Corporation. *Select Committee on the Condition of the Working Classes, op.cit.,* 1296.

35 Conrad Martens, 'Sydney from The Rocks', Susanna Evans, *Historic Sydney As Seen By Its Early Artists* (Sydney: Doubleday, 1983), 88, 89.

white apron hanging the washing out on a line strung between a back door and a wooden staircase (Plate 26).[36] For many, the frustrations of washday were compounded when the pole fell over or the line broke, pitching clean clothes into the mud. Joseph Elliott wrote proudly of his 'patent' prop which *'never* upsets the clothes'.[37]

Whilst the size of a family wash was substantially greater at mid-century than it had been in 1800, it is difficult to calculate what was considered an average wash at the time. In *The Australian Cook and Laundry Book*, Mrs Lance Rawson described a 'very big' wash as '12 dozen white things' or 144 individual pieces.[38] Evelyn Barwick's diaries provide a useful indicator of lower middle-class households (both of her own farming family and the modest establishments in which she worked) and the size of her wash was at times remarkable. On 19 September 1888, she reported, 'I finished my ironing (all but collars and lace which I don't have to do, except my own) before five o'clock. I ironed thirty white starched pinnies.' On 7 January 1890, 'We did the washing and we had such an awfully big wash. We had forty-six bedroom towels and such a lot of sheets and two white counterpanes.' And on 21 December 1893, 'One washing day this month, I think it was the 12th, we had seventeen dozen of clothes in the wash.'[39]

Just as there were strong traditions about the 'proper' way to wash clothes, so there were equally strong traditions about when, and where, the wash was done. None of these would be affected by the introduction of a washing machine. The British tradition of washing on Monday was transported to colonial Australia and survived well into the twentieth century. Such was the commitment to washing on a Monday that women stuck to this routine regardless of the weather or their own circumstances. Even on board immigrant ships, women washed on a Monday. Thus, Anna Cook, wrote to her mother in 1883, describing Monday washday using tubs brought up on deck:

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36 Shar Jones, *Monsieur Noufflard's House: Watercolours by S.T. Gill, 1857* (Sydney: Historic Houses Trust, nd.), plate 4, np.
37 Elliott, *op.cit.*, 74, 75.
38 Rawson, *op.cit.*, 102.
39 Ashford (ed.), *op. cit.*, 31, 77, 142.

> groups of women were seen, some standing, and some kneeling .... Then comes the question of hanging out. We had to put up our own line, and when that was up we didn't like hanging up the linen - until a Portsmouth woman says, 'here goes', and her chemise and drawers went off in full sail, catching all the wind. How we did laugh to be sure.[40]

In the five years Evelyn Barwick kept a diary, Monday was identifiable as the day when typically, 'We rose early and did our washing and mangling.'[41] The Monday wash even survived the introduction of the washing machine. In Diane Bell's *Generations* — a collection of interviews with three generations of Australian women — the recollections of washday and its place in the scheme of things resonate through women's memories. One recalled:

> Monday was wash day. Tuesday was ironing and kitchen-day. Wednesday was your sort of day when you do the sewing and mending, and Thursday was the bedrooms. Friday you straightened up the kitchen again, went out and did your shopping. Saturday you cooked. Sunday was for family. Well, that was the week taken up.[42]

Of course, an important factor in the survival of the Monday tradition was that, as the most physically demanding of household chores, it was best done following the only 'rest' day (ie., Sunday).[43] Yet its survival — particularly following the introduction of the electric washing machine — also pointed to the strength of traditional work patterns in Australian domestic life.[44]

The third traditional aspect of washing saw it take place either outside, or in some sort of primitive 'outhouse' attached to the side of the house. Indeed, having to wash inside was regarded as a sign of poverty, producing 'great discomfort and inconvenience to the whole family'.[45] The laundry itself was often simply a bench and tubs (Plate 27) although coppers

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40 Anna Cook to her mother, 14 December 1883 in Frost (ed.), *op. cit.*, 20.

41 Evelyn Barwick Diary, 9 December 1889 in Ashford (ed.), *op. cit.*, 72.

42 Diane Bell, *Generations: Grandmothers, Mothers and Daughters* (Melbourne: McPhee Gribble/Penguin Books, 1987), 9.

43 Davidson, *op.cit.*, 150.

44 For some women there was also an element of competition to see who could get their washing on the line first. Jennifer Isaacs cites one woman who, being delayed in getting her washing out, 'made sure her sheets were first on the line by taking the dry ones out of her drawers and hanging them out'. Jennifer Isaacs, *Pioneer Women of the Bush and Outback* (Sydney: Landsdowne Press, 1990), 56. In her study of American clotheslines, Helen Mather found similar intense competition amongst rural women, 'If you don't live in a close community, you may have to phone your neighbour, on the next farm, to see who is the winner.' Helen Mather, *Clotheslines U.S.A.* (Garden City: Doubleday & Company, 1969), np.

45 In his evidence to the Select Committee, Isaac Aaron (a health officer and district Visiting Surgeon for the Sydney Dispensary) called for the building of public baths and washhouses to prevent such discomfort. *Select Committee on the Condition of the Working Classes, op. cit.*, 1320.

could be bricked into a wash house. Kathleen Blackwood described doing the wash at The Rock, near Wagga, in 1917:

> To wash the clothes there was a tub on a box in the yard as close as you could light a fire. The clothes were boiled in kerosene tins, scrubbed on a scrubbing board, lifted out with a stick. It took all day for a family wash. Then the clothes were put into another tub to be blued. Homemade starch was made of cornflour .... We had a wire clothes line and ironed the clothes with flat irons.[46]

The outside wash-house survived the introduction of technology. Where the introduction of the stove was a major factor in the development of a specialised 'kitchen', and the sewing machine was reworked to make it acceptable in the parlour, the washing machine and wringer remained peripheral to the development of housing design until well into the twentieth century. Once piped water became available a room was given over to be a 'laundry' but this was often either a lean-to by the back door or the closed-in end of a verandah. Not until after the Second World War was it incorporated into the house proper, and never does it exhibit the same attention to fittings and finishes as that other major workspace, the kitchen. At Calthorpe's House in Canberra (an intact 1928 house), the kitchen and bathroom have the most up-to-date tiled walls and floors. The result is a sparkling white industrial surface and an overall atmosphere of hygiene and efficiency. The laundry, on the other hand, is not incorporated into the main house at all but accessed through the verandah. It has bare brick walls, a cement floor and only cold running water (Plate 28).[47] This treatment of the work process and the technology reveals that whilst other household tasks could be embraced within the 'domestic circle', laundrywork remained unequivocally 'work' and, as such, removed from family spaces into a utilitarian workspace.

If the wash was not welcome in the home, it was not rejected altogether. The co-operative laundry movement was just as unsuccessful as that for the co-operative kitchen and, even today, Ann Oakley has found housewives resistant to using laundromats; as one woman said 'They don't seem to get the clothes clean — you have to boil them when you get back.'[48]

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46 Quoted in Isaacs, *op. cit.*, 56.

47 For a discussion of surfaces in the kitchen and bathroom see Ellen Lupton and J. Abbott Miller, *The Bathroom, The Kitchen and the Aesthetics of Waste: A Process of Elimination* (Cambridge, Mass.: MIT Visual Arts Center, 1992).

48 Oakley, *op.cit.*, 55. For a discussion of the co-operative laundry movement in America see Dolores Hayden, *The Grand Domestic Revolution: A History of Feminist Designs for American*

The nineteenth century Australian housewife could neither reject laundrywork altogether nor embrace it enthusiastically. Given the great emphasis placed on designing a home for the life of its inhabitants — the power of the ordered household to create an ordered life and thereby an ordered society — it is significant that laundrywork was never embraced as part of that domestic environment. For whilst undeniably women's work, it could never be viewed as 'feminine'. The heavy labour involved and the absence of any sense of creativity meant that it challenged the domestic ideal. The space in which it occurred, although a woman's space, was not a feminine one. This is important when looking at the impact of machinery on the work and on the space. It was not until the 1950s, when laundry equipment took on the aesthetics of the kitchen — becoming streamlined and white — that the laundry and its activity finally entered the home.[49]

4. The Second Oldest Profession: Laundry Work and Laundry Workers

The low status of laundry work effectively marginalised its presence, setting it outside the home, and making new technologies less attractive to the domestic consumer. Well into the twentieth century, help with the wash came principally in a non-technological form. More hands was, as Susan Strasser points out, the most common kind of assistance. In the early colonial period, where servants were generally assigned convicts, a laundress was an essential part of a gentleman's establishment. John Blaxland at 'Newington' (on the Parramatta River) had twenty-three convict servants in 1832 and, of the eight women, three were laundresses. In smaller establishments, laundresses would come in and help with the work, or take it away and do it at home. 'Taking in washing' was a useful (if hard) way of supplementing a household's economy and enabled women to both take on paid work and supervise children. In her study of domestic life in Western Australia, Ruth Barton found

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Homes, Neighborhoods, and Cities (Cambridge, Mass.: MIT Press, 1982), 115, 116, 120, 130, 155.

49 For a discussion of gender and space in the home see Daphne Spain, *Gendered Spaces* (Chapel Hill: University of North Carolina Press, 1992), 111-140.

that the washerwoman was the most common type of domestic help, though as Mrs Doris Browning recalled, 'you were lucky to get her for Monday and Tuesday'.[50]

The fact that even modest households were prepared to spend money on hiring help for this task indicates how burdensome it was. Menie Thom, a minister's wife who was always in fairly reduced circumstances, could not envisage being without a woman to do the wash. Declining her father's invitation to Sydney in 1877, she wrote: 'I would have to employ some woman to wash. It would be impossible for your domestics to take my washing in addition to their other duties. Five children need so much.'[51]

'Independent' laundresses probably existed in the colony from the very first. Setting up in business as a washerwoman 'for the quality' or laundress 'of fine linen' required little by way of capital although it did require access to water, wash tubs and an area where clothes could be dried.[52] In her study of 2,210 female convicts arriving in New South Wales between 1825 and 1840, Deborah Oxley found that seventy-seven per cent had been employed in domestic service. Of these, 141 (or almost seven per cent of the total) described themselves as laundresses.[53] Laundry work also provided a means of earning an income for free women. Mary Carpenter, who had been a servant in London, arrived as a free settler in Adelaide in 1838 and set herself up in business, selling goods she had brought with her and taking in washing. She wrote to her previous mistress, 'I am much obliged for the mangle you sent me. I think I shall make it answer very well.'[54] In the *Gazette* in April 1803, Mistress Simpson advertised to 'the Masters and Officers of Vessels in port that their linen may be washed by her with diligence in The Stream on most reasonable terms.'[55]

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50 Ruth Barton, 'Household Technology in Western Australia, 1900-1950', *Oral History Association of Australia Journal*, No. 7(1985), 108-129 at 120.

51 Menie Thom to Henry Parkes, 16 April 1877 in A.W. Martin (ed.), *Letters from Menie: Sir Henry Parkes and His Daughter* (Melbourne: Melbourne University Press, 1983), 118.

52 See Portia Robinson, *The Women of Botany Bay* (Melbourne: Penguin Books, 1993), 218-246.

53 Deborah Oxley, 'Female Convicts' in Stephen Nicholas (ed.) *Convict Workers: Reinterpreting Australia's Past* (Cambridge: Cambridge University Press, 1988), 85-97.

54 Mary Carpenter to 'my dear Mistress and Master', 9 May 1838 in Patricia Clarke and Dale Spender (eds), *op. cit.*, 148.

55 Quoted in Evans, *op. cit.*, 88, 89.

Although *Sand's Sydney Directories* were issued from 1858, laundresses do not appear until 1863, and then only sporadically. That year, nineteen were listed, all women. The following year, the number dropped to eleven, rising to twenty-two again in 1866, the last year laundresses were listed. A comparison of the women identified in 1863, with those in 1866, reveals that only two of the original nineteen remained in business four years later. When laundresses appeared again in 1877, they were described as 'Laundries' and totalled forty-two. Most were in the city and its immediate environs (such as The Rocks and Woolloomooloo) although there were eight suburban laundries (in Glebe, Ashfield, Woollahra, Pyrmont, Marrickville, Leichhardt and Hunters Hill). Only one laundress from the 1866 list was still in business, Mrs Elizabeth O'Brien, and she had moved from Orwell Street to John Street in Leichhardt.[56] The ambivalence of *Sand's* about laundresses and laundries is a further indication of the low status of laundry work. On John Blaxland's estate, the wages of the women servants were, for the cook £25 a year, sempstress £20, housemaid £13 7s. and lady's maid £12. The laundress came last at £10 3s.[57] Similarly, Mrs Beeton's *Book of Household Management* (1861) put the laundress on the same salary as the kitchenmaid, just above the scullery maid and substantially below the cook.[58]

As a result, only women at the bottom of the employment ladder took on the job which, even in the large commercial laundries, had distinct hierarchies of work processes, underlining the relationship between heavy manual labour and low work status. The worst job was that of 'shaker'— that is, the woman who shook out the heavy garments and linens after they had been through the wringer.[59] In the United States, laundry workers were likely

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56 *Sand's Commercial and General Sydney Directory for 1863* (Sydney: John Sands, 1863), 291; *Sand's Sydney Directory for 1866* (Sydney: John Sands, 1866), 386; and *Sand's Sydney and Suburban Directory for 1877* (Sydney: John Sands, 1877), 560.

57 Quoted in Barrie Dyster, *Servant & Master: Building and Running the Grand Houses of Sydney, 1788-1850* (Sydney: University of New South Wales Press, 1989), 146.

58 The wages cited for servants when 'no extra allowance is made for tea, sugar and beer' were: cook, £14-£30, upper housemaid, £12-£20, upper laundry maid, £12-£18, under laundry maid, £9-£14, kitchenmaid £9-£14, scullery maid, £5-£9. Quoted in Horn, *op.cit.*, 130. See also Faye E. Dudden, *Serving Women: Household Service in Nineteenth Century America* (Middletown: Wesleyan University Press, 1983), 225.

59 Tentler cites as an example of a 'shaker', Mrs Kadowski, a Polish woman worker in New York, who shook towels in a neighbourhood laundry at the rate of two per minute. Leslie Woodcock Tentler, *Wage Earning Women: Industrial Work and Family Life in the United States, 1900-1930* (Oxford: Oxford University Press, 1979), 146.

to be black or recent immigrants. In rural New South Wales, some stations employed Aboriginal women as laundresses, and in the towns the Chinese came to dominate the lower end of the commercial laundry market (Plate 29).[60] Training in laundry work was thought necessary only for girls from state schools.

Laundry work was also used as a form of punishment in women's prisons and reformatories (just as road-building was for men).[61] The earliest example was the Female Factory at Parramatta, but laundrywork can be found in many other women's institutions. At Sydney's Industrial and Reformatory School, the girls washed all their own laundry by hand, with only the aid of a washboard.[62] The 'penitent women' cared for by the House of the Good Shepherd in Tempe 'paid' for their board by doing laundrywork, and successive generations of women continued to do so until 1974.[63]

A third alternative to having a laundress as part of the household, or buying in help on a casual basis, was the commercial laundry. First established to provide employment for convict women, the Female Factory at Parramatta expanded to serve private households as well as the military.[64] By mid-century, it was joined by privately run commercial laundries, some of which were mechanized. A curious monograph surviving in the Mitchell Library documented the work processes of such a commercial laundry in Hobart. Published in 1872, *Reminiscences of a Colonial Table Napkin* by 'Dorothy Diaper', described the

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60 Shirley Fitzgerald, *Rising Damp: Sydney, 1870-90* (Melbourne: Oxford University Press, 1987), 219. A similar situation prevailed in the United States. By 1880, New York had 2,000 laundries run by Chinese. Renqiu Yu, *To Save China, To Save Ourselves: The Chinese Hand Laundry Alliance of New York* (Philadelphia: Temple University Press, 1992), 8, 9.

61 The House of the Good Shepherd was founded in Sydney in 1857 and began taking 'penitent women' almost straightaway. In 1887 it moved to Tempe House and a new laundry was set up 'with very modern equipment'. See Sister Mary Gregory, 'From Refuge to Retreat to Community', *Journal of the Australian Catholic Historical Society*, 7(4),(1984), 3-19. The Salvation Army also used laundry work as an incentive to 'industry' in its girls' reform schools.

62 See Margaret Barbalet, *Far from a Low Gutter Girl: The Forgotten World of State Wards, South Australia, 1887-1940* (Melbourne: Oxford University Press, 1983), 14-21.

63 Gregory, *op. cit.*, 3-19.

64 The charges in 1838 were 1s. to 2s. for a shirt or waistcoat, 1s. to 1s. 6d. for a shift, 6d. to 1s. for babies gowns, petticoats and pinafores, 1s. to 2s. 6d. for jackets, 1s. 6d. to 2s. 6d. for a suit of slop clothing and 1s. to 3s. for trousers or pantaloons. Two years later, the Factory lowered its prices to 2s. per dozen for normal family articles, which, delivered to the factory by noon Monday would be ready for collection the following Saturday. *Sydney Gazette*, 23 March 1839, 2; 31 March 1840, 2; 26 January 1841, 4. See also Annette Salt, *These Outcast Women: The Parramatta Female Factory, 1821-1848* (Sydney: Hale & Iremonger, 1984), 108,109.

process of washing the 'author' and his companions — 'some of us were black as bogies' — in the Public Steam Laundry. After being soaked overnight 'in large vats containing a saponaceous tepid liquor' the clothes:

> were placed in a cylinder, lined with heckles, rigid and flexible. I could only compare it to a huge porcupine turned outside in! The door of the prison house being closed, it began to revolve; and a continuous blast of scalding steam was driven in; until every particle of dirt was literally blown out of us .... We were next transferred to another large cylinder or rinsing machine, containing upwards of a hundred gallons of pure cold water; but this machine revolved at such a frightful speed that most of us swooned away .... happily this was soon over, and we were placed in the hydro-extractor or wringing machine, which, by a few thousand whirls of that magic contrivance, every particle of water was literally flung out of us.[65]

After drying and mangling, the clothes were sorted, packed and delivered home with the hope (at least on the part of the napkin) that 'I shall be sent here weekly, it is so sensational.'[66] By 1880, two steam laundries were listed in *Sand's* — Clarke & McGhee in Crown Street and the Union Steam Laundry in Young Street — however, no advertisements survive for either.[67]

For colonial households that could not afford the private laundress, or the commercial or government laundry, the work fell to the women of the house. Women, who in Britain would never have become involved in the family washing, had to take on the task as part of their daily work. Fanny Bussell reported that she and her two sisters (assisted by one servant, Phoebe) divided the household duties into three departments — cook, housemaid and chambermaid — swapping responsibilities each month. Phoebe undertook the greatest part of the washing, 'but the assistance of one of us is constantly requisite'.[68] Lucy Jones, travelling with her family in rural Victoria washed socks in 'tadpoley water':

> I have been washing today the clothes are completely spoiled from mould and mildew ... I helped dig a small water hole yesterday. Chopped down several trees and wood. So you can imagine what nice hands I shall have for piano.[69]

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65 'Dorothy Diaper', *Reminiscences of a Colonial Table Napkin* (Hobart Town: W. Fletcher, 1872), 10.

66 *Idem.*

67 *Sands's Sydney and Suburban Directory for 1880* (Sydney: John Sands, 1880), 778.

68 Quoted in Lane & Serle, *op. cit.*, 235.

69 Lucy Jones, Letter Diary, 18 May 1883 quoted in Megan McMurchy, Margot Oliver and Jeni Thornley, *For Love or Money: A Pictorial History of Women and Work in Australia* (Melbourne: Penguin Books, 1983), 22.

In Evelyn Barwick's family of eight children, washing was always a communal activity. On 3 June 1889, she reported, 'We did our washing. We washed seven sheets. Alice and Susan nearly finished ironing same day.'[70]

This low status of laundry work — and laundry workers — had a significant impact on the introduction of the washing machine. Despite the fact that laundresses were a necessary resource for a wide range of households — and that high standards of work were valued — the women doing the work, just like the site in which the work took place, remained almost at the bottom of the employment hierarchy. This meant that the only incentive to mechanize was in the commercial sphere where the ability to wash more clothes more quickly could produce greater profits. But in the home, time and labour-saving were not persuasive considerations. And the job itself was so low in status and so marginalised as not to warrant the expenditure of household resources on its improvement. Thus, although a range of washing machines were available from at least the 1830s, no mention was found of them in either auction notices or insolvency records. Throughout the nineteenth century and well into the twentieth, most Australian women washed with the aid simply of tubs and a washboard and, for the more fortunate, a copper.

3. 'The Greatest Labour and Clothes Saver Ever Invented': Mechanizing Laundry Work

Experimentation with the mechanization of the laundry process — through the development of washing machines, wringers and mangles — came about as a by-product of the textile industry. As industrial manufacture of cloth increased, so did the need for a mechanical means of washing and drying huge quantities. It was thus to this market, rather than a domestic one, that early inventions were directed. And as Siegfried Giedion has pointed out in *Mechanization Takes Command*, this was an area always prolific in

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70 Evelyn Barwick Diary, 3 June 1889 in Ashford (ed.), *op. cit.*, 51.

invention. Christina Hardyment has identified an English patent for a washing machine as early as 1691;[71] alternatively, Doreen Yarwood claims that the first patent was taken out in 1780 by Mr Rogerson of Warrington for a machine to 'wash, press out water and to press linen and wearing apparel'.[72] Although the first American patent was not filed until 1805, by 1834 the *New England Farmer* suggested that 'One could suppose that Yankee ingenuity had become well nigh exhausted upon Washing Machines.'[73] This spirit of inventiveness continued and by 1873, the United States had outstripped its European competitors in laundry related patents, with over 2,000 issued.[74]

One of the best indicators of the range of machines available — and the continuing flexibility as to what constituted a 'machine' — can be found in local, national and international exhibitions. Although there were seven washing machines at the Great Exhibition in 1851, they were principally intended for the commercial market. None was sufficiently interesting to attract the attention of the jury, and in the summation of the class to which they belonged (Class XXII Hardware) they were not mentioned at all. Only one washing machine was listed in the awards, that of Charles and Co., of France, which was described as a 'machine of galvanized iron, for washing'.[75] The machines displayed at London's 1862 exhibition continued to focus on commercial rather than domestic applications. The American court featured a large steam power washing machine capable of washing 3,000 pieces in a day:

> with the least possible injury to the clothes. Furnished with a proper mangle, and rubber squeezing or wringing machine, the labours of washing are reduced to a mere nominal cost, with very little manual labour.[76]

In the machinery court was a washing machine which claimed to turn dirty linen going in one end into dry, ironed linen coming out the other. However, as the jurors commented, 'this remarkable domestic auxiliary, not being shown in operation, it is impossible to do

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71 Hardyment, *op. cit.*, 56, 57.
72 Yarwood, *op. cit.*, 146.
73 Quoted in Barlow, *op. cit.*, 342.
74 Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (1948)(New York: W. W. Norton & Co., 1975), 560-562.
75 *Exhibition of the Works of Industry of All Nations: Reports by the Juries* (London: William Clowes & Sons, 1852), 492 ff., 642, 657.
76 B.P. Johnson, *Report on International Exhibition of Industry and Art, London, 1862* (Albany: C. Van Benthuysen, 1863), 41.

more than refer to the authority of the manufacturers.'[77] There was also a clothes dryer exhibited by the World's Dryer and Wringer Co. Described merely as 'a most unique and valuable invention' it was actually an early form of a rotary clothes line.[78] The only washing equipment intended for the domestic consumer was the mangle, which as has been shown, was well established as a laundry 'necessity' by mid-century. As the United States Commissioner remarked:

> The use of rubber rollers for squeezing water from clothes after washing has become one of the important additions to the laundry, and no washerwoman or housewife who cares for her own washing should be without them.[79]

Although the same quantity of patents cannot be found in Australia, there was a similarly high level of interest in mechanizing the laundry process and, again, the primary interest was industrial rather than domestic. Not surprisingly, the greatest interest in mechanical washing came from the wool industry. In the first issue of the *Index to New South Wales Letters of Registration of Inventions*, there were some fifteen patents for washing wool compared to eleven for general washing machines.[80] Two issues of interest arise from the patent lists. Firstly, most of the patents were registered by local companies or individuals; secondly, a wide range of solutions was offered to the problem of laundering clothes. By the 1887 to 1891 edition of the *Index*, twenty-five patents were issued for domestic washing devices, ranging from washing machines and wringers to clothes lines and soap.[81]

Of the total of forty-one patents for washing machines and related inventions listed in these *Indexes*, seventy per cent were local in origin, with a further twenty per cent coming from New Zealand. Only three patents (seven per cent) originated in Great Britain and one (three per cent) in the United States. This contrasted markedly with the situation of sewing machines, where the majority of patents were from overseas, and local patents accounted only for improvements in existing machines.[82] The fact that there was so much

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77 *Ibid.*, 46.
78 *International Exhibition, 1862: United States Official Catalogue* (London: C. & F. Bell, 1862), 52.
79 Johnson, *op.cit.*, 41.
80 *Index to New South Wales Letters of Registration of Inventions* (Sydney: Government Printer, 1891), 108.
81 *Index to New South Wales Letters Patent Registered 1 August 1887- 31 December 1891* (Sydney: Government Printer, 1894), 651-697.
82 *Ibid.*, 691-697.

local invention in washing machines supports the view that what constituted a washing machine remained largely 'open' throughout the nineteenth century. By contrast, early 'closure' in the definition of the sewing machine enabled a small number of manufacturers to create and dominate the market. Colonial sewing machine inventors had no incentive to develop anything but minor modifications and improvements to an already firmly established machine.

This analysis of the washing machine accords with the Pinch Bijker model: when new technologies are under development there is a great deal of flexibility in the definition of that technology. 'Invention' is not a single event, but a process that can extend over many years. 'Stabilization' occurs only when there is a single accepted solution to the multitude of problems presented by the object.[83] With the sewing machine, this solution came quickly and by the 1870s, if the words 'sewing machine' were mentioned, they conjured up a machine with a stationary horizontal arm and a needle moving vertically through the cloth. However, when 'washing machine' was mentioned, a single object could not be so easily pictured. Indeed, the object 'conjured up' ranged from a metal 'torpedo' to a wooden box. This lengthy process before 'stabilization' occurred was a central factor in the delayed acceptance of the washing machine.

The variety of inventions in the mechanization of washing can be quickly summarised. The starting point was an attempt to imitate the 'to and fro' movement of the hand. The resultant machines were broadly classified by Giedion into two types: the first based on steam was generally a 'cylinder type' machine, while the second relied on agitation to clean the clothes. Practically all the machines registered for patents in New South Wales can be assigned to one category or the other. A few examples will indicate the range.

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83 Trevor J. Pinch and Wiebe E. Bijker, 'The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other' in Trevor J. Pinch, Thomas Hughes and Wiebe E. Bijker (eds), *The Social Construction of Technological Systems: New Directions in the Sociology and History of Technology* (Cambridge, Mass.: MIT Press, 1987), 17-50.

One of the most successful of locally manufactured machines was patented by Hans Echberg of Victoria in 1877 (Plate 30). Shaped like a 'double-ended' torpedo, the interior was lined with corrugations. When loaded with laundry and water, it was 'swung to and fro' by the operator and the clothes agitated clean. Two years later, the same inventor patented a metal version of this which, having done away with the corrugations, apparently relied completely on agitation. A version of the Wolter & Echberg machine was awarded a first degree of merit at the Sydney International Exhibition in 1879, and was 'specially commended as being all of metal and adapted to meet colonial wants'. As a washing machine it claimed to do a wash in five minutes, although it is not clear how much laundry it could hold.[84]

Another type of agitator was patented by John Wells and had 'floats or beaters (made with perforations through them) fixed to the ends of levers'. In contrast, Charles Greenway's 1882 patent of the 'Australian washing machine' produced agitation by having two boxes inside each other: 'The machine is set in motion by a lever being drawn downwards, and the open frame-work box, containing the material is lifted by means of straps and uprights, and pressed against the lid.' Lambert Harrison of Newtown and John Webb of Glen Innes relied on rollers. Harrison's machine was 'an endless apron, passing over the bottom rollers and embracing them ... giving motion to the bottom roller when the top roller presses upon and revolves it'; Webb's had 'two or more corrugated rollers ... all having revolving motion, and one or more having revolving and reciprocating longitudinal motions.' George Johnston's solution to the problem of agitation was a wooden tub with a false bottom 'formed of half-round laths fitted loosely into a groove on each side, a gripper herein seizes the clothes.'

Machines which relied on the action of steam and boiling water to move clothes, included the patent of William Humble and Ward Nicholson. This was for a device that attached to

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84 *Australasian Ironmonger*, 1 September 1889, 399. See also *Town and Country Journal*, 31 March 1877, 484. In 1876 J.B. Holdsworth claimed to be the 'sole agents' in New South Wales for this machine. *Journal of the Royal Agricultural Society*, II(1),(1876), inside front cover.

the boiler and reticulated boiling water through the washing. In 1883, Samuel Lowe of Victoria has a drum revolving in a box with the water passing from one to the other.[85] In 1887, John Macgregor and Philip Harris of George Street, Sydney, patented a cylinder: 'the inner perforated and corrugated drum ... revolves within an outer enclosing case, while a current of steam is made to circulate amongst the articles.' John Cormack of Balmain registered a revolving cylinder made up of 'a number of plates with angular formation, with holes so as to allow the steam and condensation to have full play.' While William Fyvie of Sydney resorted to 'hydro-pneumatics' with a 'scrubbing, scouring or cleaning apparatus, comprising ... a spray of water, steam, air or other fluids.'[86]

Although few of these machines went into commercial production, given the similar wide range available from Britain, the United States and Europe, there was a wealth of choice available to the colonial householder looking to mechanize washing. William Tanner, a founder of the colony at Swan River in Western Australia, brought from England in 1831 a washing machine worth £3 3s., together with two ironing machines (worth 19s.), nine irons for laundresses (13s.) and three mangles (6s.).[87] Sarah Midgley's father brought one home from town in the 1850s and she later wrote, 'today we have washed a forthnights washing with the new machine.'[88]

Yet there is scant evidence of such washing machine ownership being anything other than exceptional. Neither the houses of the establishment nor those of the middle classes commonly had such equipment. A surviving inventory for the laundry at Old Government House, Parramatta, reveals that it contained 'one complete mangle', an ironing table, two water casks, three round washing tubs, one clothes horse, a table and washing stool and a copper.[89] Nor do washing machines appear in Sydney auction notices of the 1840s. After the iron, the most common piece of laundry equipment listed (aside from washing tubs)

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85 *Registration of Inventions, op.cit.*, 574-578.

86 *Letters Patent Registered 1 August 1887 to 31 December 1891 , op.cit.*, 691-693.

87 Pamela Statham (ed.), *The Tanner Letters: A Pioneer Saga of Swan River & Tasmania, 1831-1845* (Perth: University of Western Australia Press, 1981), Appendix 1.

88 Sarah Midgley Diary, 11 March 1858, 14 June 1858, 14 July 1858 in McCorkell (ed.), *op.cit.*, 59, 62, 64.

89 Lane & Serle, *op.cit.*, 389.

was the patent mangle. William Carr's 'chaste and elegant furniture' from 'Goderich Lodge' in Darlinghurst included a patent mangle, two drying horses and a laundry ironing stove.[90] F. Parbury of 'Orwell House' in Darlinghurst had a separate laundry equipped with an 'excellent mangle', ironing board, drying horse and two baskets.[91] The previous incumbent of 'Orwell House' had one of the best equipped laundries — with a mangle, long cedar table and ironing table, copper, two chairs, two pails, four washing tubs, two clothes baskets and one drying horse, four flat irons and two Italian irons — but again, no washing machine.[92]

Similarly, insolvent estate records surveyed for the second half of the nineteenth century do not mention washing machines. Indeed, the laundries of professional and working people were surprisingly similar in the simplicity of their equipment. John Usher, a publican from Muswellbrook had three tubs and a boiler in the laundry.[93] Timothy Henery, a Woollahra coachman, had wash tubs, bucket and a mangle,[94] as did John Owen, a saddler from Wollongong,[95] whilst the far more prosperous merchant, William Lloyd, had only tubs and buckets.[96] Furthermore the inventories of general stores where most of these people would have shopped, did not contain washing machines.[97]

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90 *Catalogue of the Chaste and Elegant Furniture: William Carr, Goderich Lodge, Darlinghurst* (Sydney: Kemp and Fairfax, 1848), 8.

91 *Catalogue of Household Furniture: At the Residence of F. Parbury, Orwell House, Darlinghurst* (Sydney: Statham and Forster, 1857), 8.

92 *Catalogue of Very Elegant Household Furniture: At the Residence of G.R. Griffiths, Orwell House, Darlinghurst* (Sydney: Statham and Forster, 1846), 10. See also *Catalogue of Elegant Household Furniture: At the Residence of Hugh Chambers, Macquarie Street* (Sydney: T. Forster, 1847), 8; *Catalogue of Household Furniture, Grand Pianoforte: At the Residence of the Late William Hirst, Darling Point* (Sydney: Statham and Forster, 1846), 6, 7; *Catalogue of Elegant Rosewood and Mahogany Furniture: At the Residence of Donald Larnach, Rosebank, Darlinghurst* (Sydney, 1848), 8.

93 John Usher, Insolvency Records 2/10,382, File 22499 (1887), State Archives Office of New South Wales.

94 Timothy Henery, Insolvency Records 2/9535, File 12050 (1874), State Archives Office of New South Wales.

95 John Owen, Insolvency Records 2/10,397, File 22681(1887), State Archives Office of New South Wales.

96 William Lloyd, Insolvency Records 2/9540, File 13 (1842), State Archives Office of New South Wales.

97 See for example, John Carroll and William Carroll, general storekeepers of Dungog, Insolvency Records 2/9530, File 11979 (1874); Henry Frazer, Storekeeper, Jerry's Plains, Insolvency Records 2/10,387, File 22560 (1887), State Archives Office of New South Wales.

This contrasts with the evidence of exhibitions and department store catalogues which suggests that a wide range of machines were readily available. Whilst few attracted press attention, washing machines were displayed at colonial, intercolonial and international exhibitions. The 1877 agricultural show in Sydney included:

> A set of three continuous washtubs ... with sets of taps and piping for connection with the ordinary water supply; there are also escape taps at the bottom of the tubs, which are square in shape, gradually tapering towards the bottom. In connection with this, Messrs Lassetter also show Anderson's patent washing machine, which will in five minutes wash half a dozen shirts. There are also several other kinds of washing machines, two and three roller mangles, wringing machines, washing copper, together with crimping and goffering machines, with American box irons and ordinary smoothing irons.[98]

However, it is clear that such machines were far from being revolutionary solutions to the problems of the wash. Whereas a sewing machine demonstration revealed dramatic increases in speed — and saving in time — mechanization failed similarly to transform the washing process. The 'continuous washtubs' were a somewhat more efficient organisation of a work process that was already going on. And Anderson's machine, which 'processed' a shirt in just under a minute, was not much of an improvement in speed over a laundress rubbing each shirt on a washboard.

Displays of washing machines at subsequent Australian international exhibitions were characterised by similarly exorbitant claims and the same failure to transform the work process.[99] A surviving flyer for the 'Victoria Patent Domestic Boiler' claimed that clean clothes merely required the proud owner of their machine to:

> Boil twenty to thirty minutes; then lift the clothes from the boiler into the rinsing water, which should be changed twice, thence through the wringer into the blue water, thence through the wringer, when they will then be ready to hang out on the line to dry.[100]

The testimonials included in the flyer provide further insight into the important issues for consumers in buying a washing machine. As Priscilla Brewer's work on cooking stoves

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98 *Illustrated Sydney News*, 28 April 1877, 11.

99 *Sydney International Exhibition 1879: Regulations* (Sydney: Gibbs Shallard & Co., [1879]), 10. See also Linda Young, 'Let Them See How Like England We Can Be': An Account of the Sydney International Exhibition, 1879 (Unpublished MA Thesis, University of Sydney, 1983), 89.

100 *Victoria Patent Domestic Boiler* (Melbourne: Ferguson and Moore, [1880]). This flyer was produced by the manufacturer, R.G. Ford, for the 1880 exhibition. The machines were priced from £3 15s. to £7 15s., ranging in size from twelve to twenty-five gallons. 'Orders taken by attendant' was over-printed across the top.

demonstrates, testimonials are an important indicator both of the qualities a manufacturer wants drawn out and the areas of consumer concern.[101] Those given in support of the 'Victoria Patent Boiler' focussed on labour-saving and superior outcome. Thus Emma Middleton praised the machine's ability to get clothes clean and produce a 'good colour'. She also suggested that 'the clothes require no labour' and, curiously — given the size and weight of the machine — claimed that she had lent it to several people who all found it most satisfactory. Mrs Brogan of Carlton also referred to 'no labour used', stating the washing now took only a quarter of the time and less than half the fuel. Alex Dunlop of Harewood found that 'the women get their work through two hours earlier now'.[102] Failure to achieve such results was attributed not to the machine but to the operator. J.W. Hunt of Malvern praised its labour-saving potential, 'when the directions are closely followed. Like most new things, it requires time and experience before the maximum benefit ... is derived.'[103] But as the manufacturer's own instructions revealed, the machine addressed only a small portion of the process. The boiler still had to be filled, the clothes lifted into the rinse, 'which should be changed twice, then through the wringer into the blue water, thence through the wringer, when they will be ready to hang out on the line.'[104] Women visiting the display of the 'Victoria Patent Domestic Boiler' at Melbourne's Centennial Exhibition would have been only too well aware of this machine's failure to solve the real burden of washing.

It is evident from displays at these international exhibitions that as long as fifty years after they were first mentioned in Australia, the concept of what constituted a washing machine remained fluid and continued to offer an almost open field to the inventor. It was not coincidental that, whilst other domestic technologies were quickly dominated by a small number of British and American manufacturers, washing machines had a comparatively high proportion of local manufacturers.[105] But the extravagant claims of local and

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101 See Priscilla J. Brewer, ' "We have Got A Very Good Cooking Stove": Advertising, Design and Consumer Response to the Cookstove, 1815-1880', *Winterthur Portfolio,* 25 (1),(1990), 35-54.

102 *Victoria Patent Domestic Boiler, op. cit., np.*

103 Rawson, *op.cit.*, 102.

104 *Idem.*

105 For example, at Melbourne's Centennial Exhibition local manufacturers included L. Harrison of Marrickville, G. Hardley of North Melbourne, S. Lowe, W.F. Manson, and

international manufacturers alike — 'Washing Day no longer Dreaded!'[106] — could not be matched by the capabilities of the machines. Of course, the major players were emerging. Principal awards at the 1888 exhibition went to three companies that would dominate the industry well into the twentieth century — the English companies, Thomas Bradford and W. Summerscales and the American, Empire Wringer Company.[107]

The poor performance of washing machines combined with the low status of laundry work meant that there was little incentive to mechanize the wash, in the same way that sewing had been mechanized or that cooking was in the process of being. Money spent on the laundry implied taking resources away from the domestic circle, rather than reinforcing it. Furthermore, since there was no getting away from the hard labour involved, it was impossible to romanticise either the work or the machine. Clean clothes were of critical importance to social standing and respectability, but were achievable without mechanization. Mrs Wicken, who did not hesitate to encourage her readers to purchase a gas stove, expected that at best their laundry room would comprise a copper, four large washtubs and a wringer, and that laundry work would remain, 'a necessary evil'.[108] Mrs Rawson neither expected her readers to have a laundry, 'I myself had none until quite lately', nor much by way of laundry equipment:

> I believe a copper boiler is the best, but never having used one, I cannot speak confidently .... I have seen a common kerosene tin used for the purpose, and answer very well.[109]

As for washing machines, 'I have very little to say, for my own part I do not care for them.'[110]

Wolter & Echberg. *Official Record of the Centennial International Exhibition Melbourne, 1888-1889* (Melbourne: Sands & McDougall, 1890), 456, 616.

106 *Australasian Ironmonger*, 1 May 1888, 19.

107 *Official Record, op. cit.*, 13-18.

108 Mrs Harriet Wicken, *The Australian Home: A Handbook of Domestic Economy* (Sydney: Edwards, Dunlop & Co., 1891), 177, 179.

109 Mrs Lance Rawson, *Cookery Book and Household Hints* (Rockhampton: William Hopkins, 1886), 8.

110 *Idem.* This was despite putting them last on her list of necessary labour-saving appliances. See Chapter III.

Conclusion

Well into the twentieth century, the Australian laundry consisted principally of washtubs and washboard, with a bench to stand them on and some sort of boiler to heat the water. The only advance on washing techniques of Roman times was the wringer, and although highly desirable — 'no laundry should be without one'[111] — even this modest piece of technology was far from being universal, and none were found in insolvency records (Plate 31). The failure of the washing machine to become an essential part of every home had two main causes: the low status of laundry work and the inability of available machines to do the job properly.

The nature of the task of washing clothes — in particular the heavy, 'unfeminine' labour involved — meant that it was excluded from the immediate environs of the family, banished outside to a lean-to, or to tubs by the back door. Paid laundry workers — Chinese men and migrant women — held one of the lowest status jobs of all. This meant that households were also less inclined to spend money on machines to assist the process. Whilst it could be expected that any improvement in carrying out such a task would be welcomed, in fact work practices were very conservative. There was one way to do things and that was the way it had to be done. In part this reflected the importance placed on cleanliness. Since 'respectability' was almost entirely dependant upon it, cleanliness was not something that could be put at risk. Machines — and even commercial laundries — could not be relied upon to perform this almost religious task. As one manufacturer reported:

> Many, very many disappointments have followed the purchase of Washing Machines, and ... thousands of them have been thrown aside as waste lumber after a few trials, until many people have concluded that the genius of inventors, as applied to this department of social necessity, is a total failure.[112]

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111 *Ibid.*, 9.

112 *Doty's Clothes Washer and Churn Power* (New York: Metropolitan Washing Company, [1866]), np. Warshaw Collection of Business Americana, Smithsonian Institution.

Clothes and household linen did not just have to be washed, they had to be washed well.

Even when conditions finally combined to produce a machine that successfully washed clothes, the take up of the machine remained slow in colonial Australia as indicated by domestic guides and surviving household inventories. As late as the First World War, Australian housewives were not expected to own, or even aspire to, a washing machine. A 1955 survey of ownership of home appliances in Australia's major cities reveals that of those concerned with major work tasks — cooking, cleaning and sewing — the washing machine had the lowest level of acceptance. On average, the proportion of homes in Sydney, Melbourne and Brisbane owning an electric washing machine was only thirty-nine per cent, and only twenty-six per cent of homes had running hot water in the laundry (compared to forty-eight per cent in the kitchen).[113] All homes had a stove and an electric iron, four out of five a sewing machine, three out of four a refrigerator and a vacuum cleaner, yet less than one in two had a washing machine.

It cannot be argued that it was merely expense, since many of these homes also had a car in the garage and would soon find the resources to buy a television set. On the contrary, the washing machine provides a fascinating study of a technology's failure to be adopted despite the fact that it addressed one of the household's most onerous tasks. Evidently, no matter what form they took, washing machines both failed to wash well and to ease the burden of manual labour. In fact, a mechanized machine could be just as much work as washing by hand, because motive power was supplied by the operator turning handles, working levers or rocking a cradle back and forth. In the autobiographical *Childhood at Brindabella*, Miles Franklin described the washing machine in her grandmother's laundry as, 'a species of cradle swung on a stand, and took two to rock it. This chore was generally the refuge and wonderment of the untrained men visitors from overseas.'[114] More than half a century later, the owner of a 1920s manual vacuum pump machine which was still being

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113 The Council for Advertising Research in Australia, *Home Appliances: 1955: Survey of Ownership Sydney Melbourne Brisbane* (Sydney: The Council for Advertising Research in Australia, [1955]), np.

114 Miles Franklin, *Childhood at Brindabella* (1963)(Sydney: Angus and Robertson, 1981), 148-149.

used in the 1960s described its operation as, 'The only problem was that if you put too many clothes in you didn't get circulation. Your arm would get tired — it was hard work. I used to get the missus to have a go, but mostly I had to do it all. It ended up I was the machine myself.'[115]

In addition, the peripheral nature of washing — in an outhouse, away from the 'merry family circle' — further reduced the household's inclination to spend money on its mechanization. Where a cooking stove could, through decorative embellishment, become a 'handsome piece of furniture', a washing machine was always a machine. Neither the machine, nor the work process, could be romanced by the domestic ideal and brought within its walls.

By the 1870s, sewing machine advertisements were reinforcing the desirability of sewing machines generally (since they all looked much the same), but advertisements for washing machines continued to diversify (and probably confuse) the market with a range of solutions, all far from perfect. The washing machine had failed to reach 'closure' because well into the twentieth century, water still had to be fetched, heated, poured into the machine and the machine emptied and filled again. Wet washing still had to be lifted out, wrung out, rinsed and lifted back. What labour that might be saved in one area was more than expended in another. This meant that it wasn't until widespread availability of piped water and the introduction of automatic machines in the 1960s, that consumers could find a single solution to the problem of doing the family wash.

Well into this century, the Australian laundry remained unconquered by the wonders of machinery. It remains to ask why, whilst washing machines took many decades to become 'artefacts', and even longer to enter the home in any significant way, other laundry appliances were much quicker to be identified and far faster in acceptance into the

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115 Mr. L. Donovan interviewed by Inara Walden about his first washing machine, Museum of Applied Arts and Sciences, Sydney, 1992.

colonial home? Something of an answer emerges in the history of the introduction of irons into the nineteenth century Australian home.

Plate 23



Monday Morning, 1912, oil painting by Vida Lahey. Queensland Art Gallery.

Although fortunate to have running water (albeit cold), the work involved in doing the family wash was still arduous. With their sleeves rolled up, and their clothes protected by heavy aprons, the Lahey sisters provide an image of industry rather than feminine domesticity.

Plate 24



Unidentified family, Gulgong, photographed by Beaufoy Merlin, about 1872. Mitchell Library, State Library of New South Wales.

This photograph is a testament to the importance of cleanliness as evidence of respectability. Despite the mud, the expense of buying water and the very basic laundry equipment — a water cask with a saucepan for a pitcher stands next to two washtubs raised to a comfortable height by rough hewn logs — these women are able to dress themselves and their children in impressively clean clothes, a testament to many hours spent at the washboard.

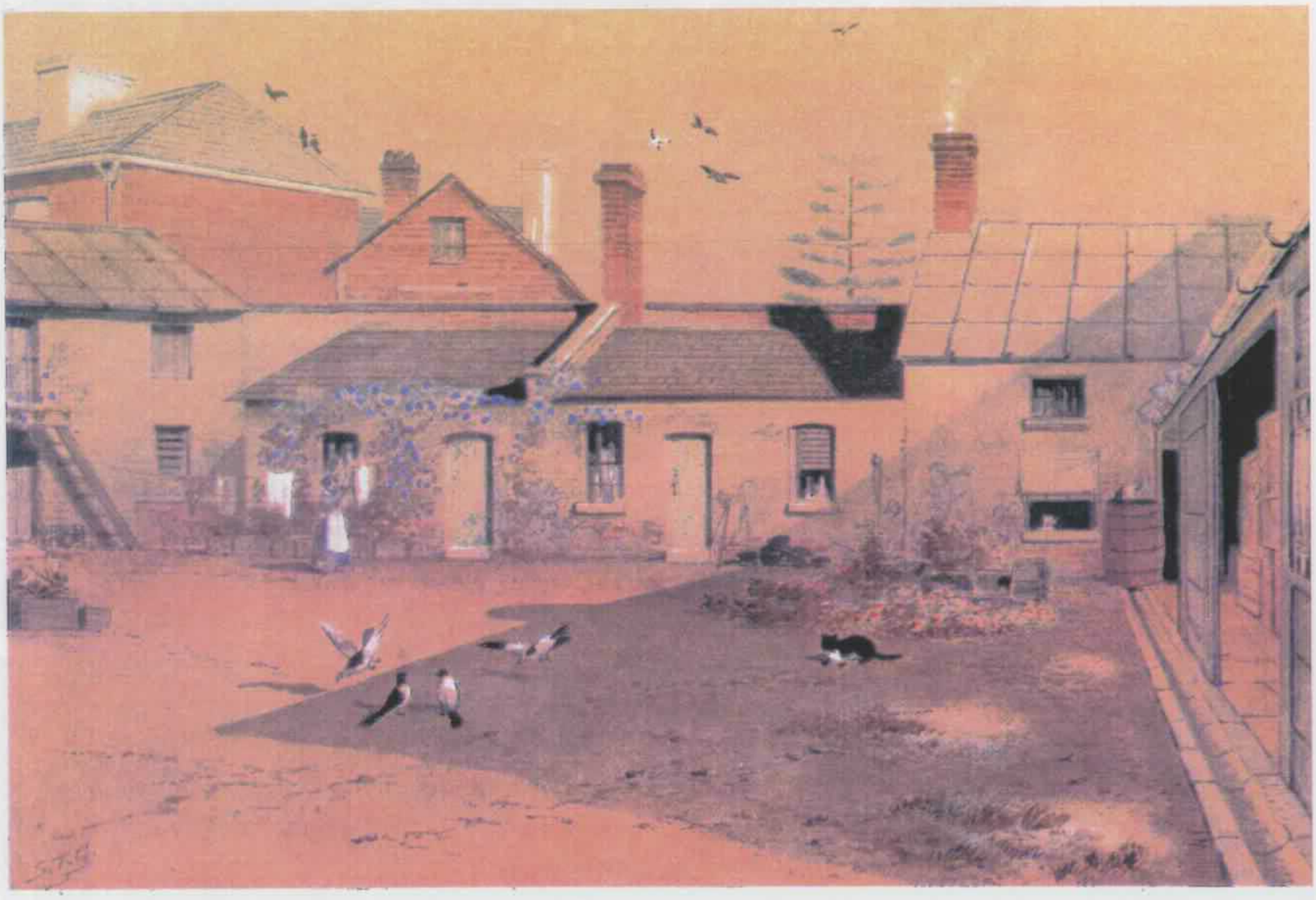
Plate 25



Washboards. Museum of Applied Arts and Sciences.

These washboards include one home made example carved from wood and two made from corrugated iron.

Plate 26



The Cat in the Courtyard, watercolour by S.T. Gill, 1857. Historic Houses Trust.

One of eight views of Monsieur Noufflard's house in Bligh Street Sydney, shows the rudimentary manner in which clothes were hung out to dry. A line has been strung from a hook inside the kitchen doorway to the steps leading up to a storeroom. The crudeness of this provision for laundry contrasts with the sophistication of the house and its furnishings which were also painted by Gill.

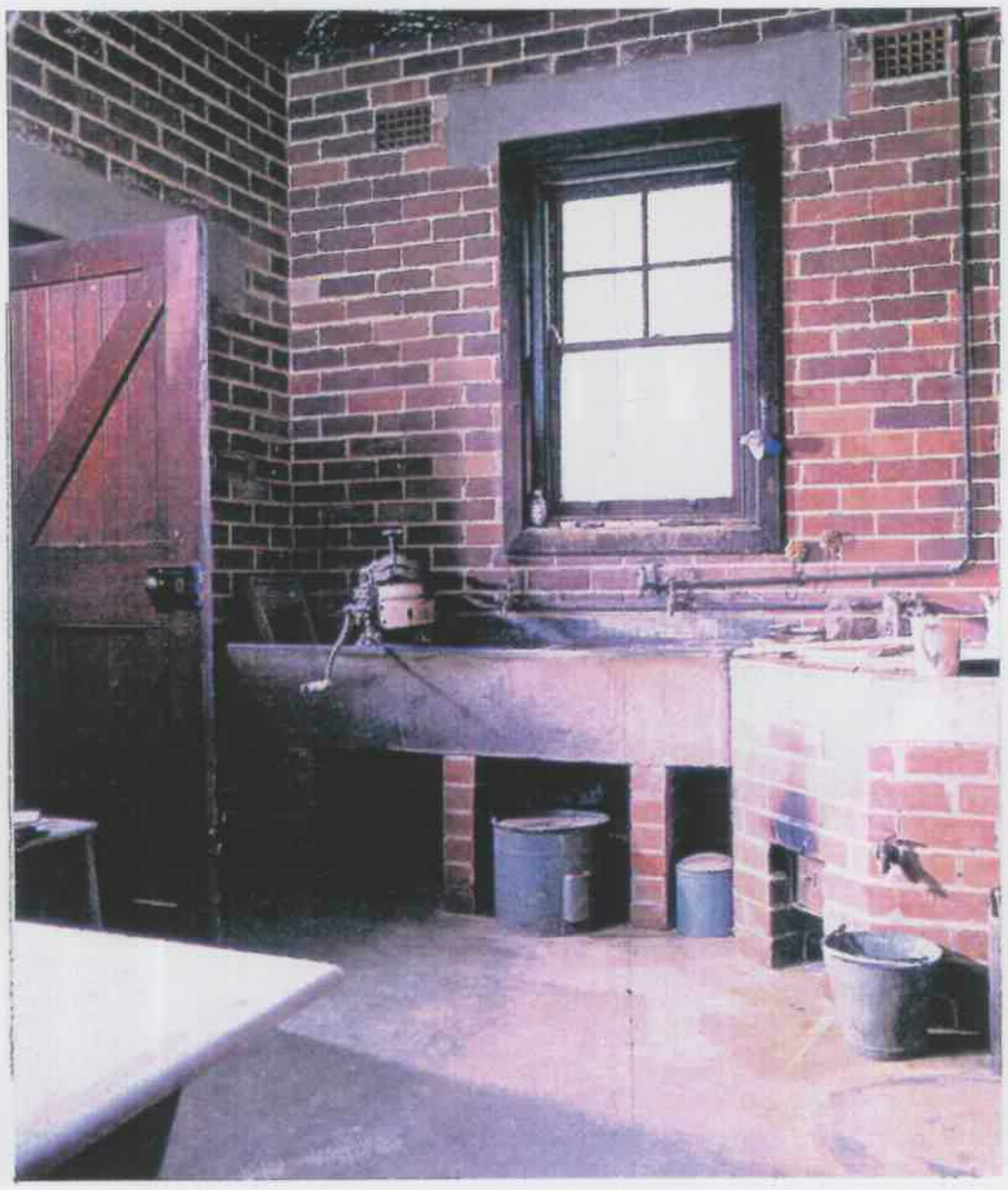
Plate 27



The Gibson Girls doing the Wash, family photograph taken outside Hay, c. 1910. Mitchell Library, State Library of New South Wales.

During a drought, the Gibson's moved their basic laundry equipment to an adjoining property which still had supplies of fresh water. The clothes were boiled over the fire before being rinsed in tin tubs. Such rudimentary laundries could be found throughout rural Australia well into the twentieth century.

Plate 28



The Laundry at Calthorpe's House, Canberra photographed in 1987. Calthorpe's House Museum.

The Calthorpe's laundry was at the back of the house, entered from the rear porch. The focus of the room on work, rather than on domestic life, was emphasised through the unplastered walls, cement floor and rough finishes. Whereas the major appliances in the kitchen were powered by electricity, the copper was wood-burning and the only labour-saving technology in use was the (hand powered) Acme wringer.

Plate 29



Aboriginal Maid Ironing, photographed in Bourke, about 1912.
Mitchell Library, State Library of New South Wales.

This Aboriginal maid at 'Kaleno' station appears to be ironing on the kitchen table, using a flat iron that would have been heated on the fuel stove. Domestic guides repeatedly advised householders not to leave the ironing of their fine clothes and best linen to servants. It is significant therefore that this maid seems only to have been entrusted with sheets and tablecloths.

Plate 30



Wolter & Echberg Washing Machine. Museum of Applied Arts and Sciences.

The handle on the right swung the machine back and forth, agitating the dirt out of the clothes. The manufacturer also claimed that the machine had the 'remarkable advantage that it can be used either as a washing machine or a churn'. However they provided no suggestions as to how to clean the butter out before putting the clothes in.

Plate 31



Open Air Washhouse, Collingwood, photographed by the Victorian Slum Abolition Movement, c. 1935. Museum of Victoria.

This photograph comes from a collection taken as part of the 1930s campaign to rid inner-city Melbourne of its slum housing. As the caption stated, this open air wash house was 'typical of thousands'. Its occupant faced the same challenge as her nineteenth century counterpart, getting clothes clean with the aid of only water, tubs and perhaps a washboard.

V

Irons: The Creation of Gentility

Introduction

For a number of reasons, ironing differed from other technological practices in domestic work. Firstly, it could not be considered a necessary technology in the same way that a method of controlling heat was necessary to cooking, or of binding two pieces of cloth together was necessary to sewing. For there was no practical reason why clothes had to be pressed, and certainly none for them to be starched and ironed. Where washing clothes and household linen became viewed as essential for reasons of health and comfort, ironing them was primarily in response to the demands of fashion.

Moreover, the technology of the iron was not a new technology. Indeed, the iron was 'invented' in ancient Greece to provide a means of class distinction when the wearing of pleated garments became an indicator of the wearer's ownership of slaves or servants with sufficient time to undertake such tasks.[1] The concept of ironed clothes was introduced to Europe in the sixteenth century through the mangling board and roller. Cloth was rolled as smooth as possible, in the same way that pastry is flattened with a rolling pin; and when still damp, was wound on the roller and pushed back and forth on a table by a board. The Dutch developed the idea of using a hot iron to smooth clothes, and developed two broad types: the box iron (into which a pre-heated slug had to be placed), and the sad (or solid) iron that was heated on a stove.[2] Within a comparatively short period of time, ironing spread through the social spectrum, and references to both smoothing and box irons are found in European farm and cottage inventories as early as the 1630s.[3]

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1 Charles Panati, *Panati's Extraordinary Origins of Everyday Things* (New York: Perennial Library, 1987), 143.

2 For a detailed history of the iron see Brian Jewell, *Smoothing Irons: A History and Collector's Guide* (Des Moines: W.H. Books, 1977).

3 Caroline Davidson, *A Woman's Work is Never Done: A History of Housework in the British Isles, 1650-1950* (London: Chatto & Windus, 1982), 155.

The third significant factor about the iron was its unquestioned popularity. Not for the iron were there any of the reservations or hesitancies that characterised the history of cooking stoves and washing machines. Although the practice was far from being necessary, the iron itself quickly became a necessity. The assimilation process of the iron in Australia was not one of slow adoption and adaptation. On the contrary, the iron quickly reached 'closure', and as early as the 1830s there was almost universal agreement on what the different types of iron looked like, and how they could be used. The changes in iron technology during the nineteenth century were therefore not in establishing its importance, but in increasing its specialisation, as the perfect ironed surface necessitated different types and weights of irons.

Its relevance to *Romancing the Machine* therefore lies in the further evidence the iron provides of the interrelationship between technology, work practice and the domestic ideal. The fact that the iron succeeded where other technologies failed, says much about the overriding importance of social and cultural factors in the acceptance of technology into the home. For the iron's almost universal acceptance did not arise from any practical necessity, but from the far more powerful social and cultural necessity of ironed clothing. Through its transformation of crumpled materials into smooth, almost polished, surfaces the iron provided an instant indicator of a family's gentility, revealing that the waged and un-waged women of the household were prepared to spend considerable amounts of time each week on its application. Furthermore, although undeniably a product of the machine age, since it was small and comparatively inexpensive the iron did not require the same 'transformation' into a domestic aesthetic that the cooking stove and sewing machine underwent. As such, of all the technologies surveyed, the iron was able to contribute to the romantic transformation of the home in the nineteenth century, whilst at the same time retaining its evocation of Victorian technology.

1. 'Cascades of Lace': The Increasing Importance of Ironed Clothing

The history of the iron in Western Europe is closely linked to the history of clothing and household linen. Both were transformed in the eighteenth century through the introduction of power looms, and consequent production of cheap cotton manufactures. Until then, rich and poor were distinguished by the texture of the clothes they wore. Working people wore rough materials that either were never washed, or could be washed infrequently, and in any case did not require ironing. Men wore breeches of leather or cord and shirts of coarse flannel, drill or calico; women had dresses of wool, linsey woolsey, calico or linen with holland aprons.[4] Care of clothing did not include weekly washing and ironing, but rather a general requirement to look after clothes. Writing in 1760 of the experience of being a maid, Ann Cook reported that after returning from church, the maids took off their good gowns, carefully put them away, and put on 'homespun' in their place:

> for no Maid in the Family she allows above one Gown washed in a Quarter of the Year. So every one of us endeavours which shall keep their gown cleanest.[5]

In general, people possessed far fewer clothes, and neither men nor women wore underclothing. In the eighteenth century, however, British colonies in East India, India and the American south brought cheap cottons, chintzes and calicoes within the reach of all. Their price difference explained their success. A surviving day book from a dress manufacturer in 1770s Manchester showed that the cheapest cotton gown sold for eight shillings, compared to between sixteen and seventeen shillings for a dress of cotton and silk mix and almost twice that for a wool dress.[6] Cotton became available in a wide range of textures, colours and patterns and, for the first time, gave the working and middle-classes

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4 Linsey woolsey had a wool weft and a cotton weave. See Bridget Yates, 'Rural Dress in Norfolk', *Strata of Society: Costume Society Conference, 1973* (Norwich: Costume Society, 1973), 6-9; Anne M. Scott, 'Women's Working Dress on the Farms of the East Borders', *Costume*, 10 (1976), 41-48; for a general study see Elizabeth Ewing, *Everyday Dress, 1650-1900* (London: B.T. Batsford Ltd., 1984).

5 Ann Cook, *Professed Cookery* (1760) quoted in Anne Buck, 'The Dress of Domestic Servants in the Eighteenth Century', in *Strata of Society, op. cit.*, 10-16 at 13, 14.

6 Beverly Lemire, 'Developing Consumerism and the Ready-Made Clothing Trade in Britain, 1750-1800', *Textile History*, 15(1),(1984), 21-44.

an opportunity to engage in 'fashionable dress'.[7] Although it is impossible to determine the exact amount of cotton produced or consumed in eighteenth century Britain, Beverly Lemire has calculated that in the last decade of the eighteenth century the number of yards of printed cotton sold in Britain almost doubled — from fifteen million to almost twenty-nine million yards — an increase largely attributable to the new buying power of the working and middle-classes.[8]

If cheap cottons began the process of 'democratizing' fashion, they also reinforced the importance of fine distinctions in type and texture of cloth, its colour, cut and presentation as indicators of rank. And, despite the obvious hardships, these distinctions were transported to colonial New South Wales. Eliza Darling's *Simple Rules for the Guidance of Persons in Humble Life* (1837) made much of the importance of wearing clothes appropriate to one's status. The story was told of a young neighbour, about to leave to take up service, whose mother — encouraged by a 'bold and unpleasant' acquaintance — was making her an entirely inappropriate wardrobe of 'showy' clothing. As the author cautioned, 'Let your dress be neat and clean .... But in buying clothes do not go beyond what you can prudently afford, and what is proper for your situation.' Thus in a poem in the same work, the 'Tidy Girl' wore 'a stout cotton gown of dark and light blue', and the 'Slattern', 'a light showy gown of red, yellow and green'.[9] Indeed, the circumstances of being a migrant and convict society, made such careful attention to 'appropriate' dress all the more ritually observed.

These new fine cottons, muslins, calicoes and linens required ironing, and their increasing use added greatly to the burden of maintaining clothes. Yet their affordability also made them highly desirable. For where once working people would have had little idea of

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7 See Beverly Lemire, ' "A Good Stock of Cloaths": The Changing Market for Cotton Clothing in Britain, 1750-1800', *Textile History*, 22(2),(1991), 311-328.

8 Lemire, 'Developing Consumerism', *op. cit.*, 323, 324.

9 Eliza Darling, *Simple Rules for the Guidance of Persons in Humble Life; More Particularly For Young Girls Going Out To Service* (Sydney: James Tegg & Co, 1837), 1, 133, 134. Before synthetic dyes were invented, the cost of different natural dyes made colour an important indicator of class. Blue, as the cheapest, was regarded as the most appropriate for clothing of convicts and working people.

fashion or interest in fashionable dress, by the late eighteenth century the 'lure of fashionability' affected almost all ranks, and men as much as women.[10] Jane Elliott's recent study of early colonial clothing has found that even convicts aspired to fashionable dress and, together with ordinary working people, spent a significant portion of their income on their appearance. She cites the example of Murphy, the charcoal burner who spent over nine pounds on clothing between 1807 and 1808; and William Field, a Hawkesbury settler who paid £2 10s. for a hat when he could have bought one for 7s. 6d.[11] Insolvency records reveal similarly high levels of expenditure on clothing by men as much as women. The bootmaker, William Fishburn, was imprisoned for his debt of £13 3s., which included £3 9s. owing for clothes. All he possessed was his wardrobe which consisted of a frock coat, two pairs of drill trousers, a pair of black trousers, three shirts, a cabbage tree hat, a pair of boots and two silk handkerchiefs.[12] John Gray, the assistant harbour master at the Rocks, was declared bankrupt for a debt of £17 9s. 10d., yet had recently spent £15 on clothes and £4 10s. on three hats for himself.[13]

A good example of the spread of fashion — and the impact it had on laundry work — can be found in the history of men's shirts. By the late eighteenth century, cotton, available in checks and plain colours, had begun to replace linen as shirting material, and shirts could now be purchased ready-made. The quality of the cotton used became a sure indicator of class. As *The Lady's Self Instructor in Millinery* (1844) put it, 'the degree of fineness must be determined by the occupation and station of the wearer.'[14] But even more important was colour. By the time of the first settlement in Sydney, the most obvious indicator of gentlemanly status was the wearing of a (highly impractical) white shirt with very

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10 For a discussion of changes in men's clothing in the nineteenth century see Leonore Davidoff and Catherine Hall, *Family Fortunes: Men and Women of the English Middle Class, 1780-1850* (London: Hutchinson, 1987), 410-415.

11 Jane Elliott, 'Was There A Convict Dandy? Convict Consumer Interests in Sydney, 1788-1815', *Australian Historical Studies*, 26(104),(1995), 373-392.

12 Fishburn was clearly a man with romantic aspirations. Also included in his debt was £4 4s. for dancing instructions. William Fishburn, Insolvency Records 2/8650, File 32 (1842), State Archives Office of New South Wales.

13 John Gray, Insolvency Records 2/8650, File 309 (1842), State Archives Office of New South Wales.

14 'An American Lady', *The Lady's Self Instructor in Millinery, Mantua Making and All Branches of Plain Sewing* (New York: Burgess, Stringer & Co., 1844), 21.

pronounced white neckcloth.[15] Sophia Campbell's painting, *The Costume of the Australasians* (Plate 32) makes these distinctions very clearly. The military official, 'civilian gentleman', officers and soldiers all had high starched white collars. Amongst the gentleman, a further class distinction was made according to the generosity of their white neckcloths. By contrast, convicts and workers had coloured shirts and soft collars with a patterned neckerchief.[16] The class and status of each person depicted was therefore instantly apparent.

The importance of the white shirt increased and by the 1830s was having an enormous impact on the laundry industry. The author of *The Workwoman's Guide* (1838) cautioned against wearing anything else, unless engaged in sporting activities:

> Gentlemen's shirts are usually made of fine Irish linen or lawn, and sometimes of long cloth. Some gentlemen wear striped calico, but seldom, unless engaged in sporting, boating or fishing.[17]

Simply by wearing a white shirt, collar and cuffs a man implied that he had someone to do his laundry, and could afford the costs implicit in both the 'whiteness' and the carefully starched and ironed presentation. Detachable collars were available from at least mid-century and helped extend the 'life' of the shirt, but they did not diminish its significance.[18] By the 1880s a 'collar and tie' gentleman had come to signify a man sufficiently prosperous to afford such luxuries.[19] To give up the white shirt was to abandon middle class life itself.

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15 This was supposedly one of the measures applied by that leader in men's fashion in the eighteenth century, Beau Brummel. His biographer wrote, 'to detect in [his acquaintances] any deviation from that virtue was a sufficient reason for his declining any further intercourse with them'. Quoted in C. Willett Cunnington and Phillis Cunnington, *The History of Underclothes* (London: Faber and Faber, 1981), 64. See also Richard L. Bushman and Claudia L. Bushman, 'The Early History of Cleanliness in America', *Journal of American History*, 74(4),(1988), 1213-1238 at 1220.

16 Jennifer Sanders, 'Dress and Textiles' in James Broadbent and Joy Hughes (eds), *The Age of Macquarie* (Melbourne: Melbourne University Press and Historic Houses Trust of New South Wales, 1992), 143-156 at 149. See also Joan Kerr's discussion of this painting in Joan Kerr & Hugh Falkus, *From Sydney Cove to Duntroon: A Family Album of Early Life in Australia* (Richmond: Hutchinson, 1982), 30-33.

17 'A Lady', *The Workwoman's Guide* (London: Simkin, Marshall and Co., 1838), 142.

18 Detachable collars came to be worn about 1820 and their invention was attributed to an American, Mrs Orlando Montague of Troy, New York, who tired of providing her husband with a clean shirt each day. Claudia B. Kidwell and Margaret C. Christman, *Suiting Everyone: The Democratization of Clothing in America* (Washington, D.C.: Smithsonian Institution Press, 1974), 49.

19 'A Lady', *Afternoons in the Manchester Slums* (1887), quoted in Sarah Levitt, 'Cheap Mass-Produced Men's Clothing in the Nineteenth and Early Twentieth Centuries', *Textile History*, 22 (2),(1991), 179-192.

As H.G. Wells has Mr Buggins remind Kipps after he is sacked, 'Whatever you do, keep hold of your collar and cuffs — shirts if you can but collars anyhow.'[20] Even with detachable collars, in a climate such as Australia's it is difficult to imagine a gentleman wearing less than one clean shirt a day. In their history of underwear, Willett and Cunnington estimate that a gentleman needed at least two, and cite the example of a naval officer's inventory which listed 56 shirts and 32 neck cloths.[21] The early insolvency records include detailed lists of clothing and reveal that working men commonly had five or six shirts and gentlemen twice that number. Thus, John McDonald, a publican in Bathurst had five shirts, a neckerchief and a silk cravat;[22] the general agent, John Fulton, had only one pair of shoes and two pairs of trousers but had six shirts and two stocks;[23] and the 'gentleman', William Orde, had twelve shirts, of which six were detained by his landlord in lieu of rent.[24]

The second major impact on laundrywork came with the popularization of underwear. In the first decades of settlement, underwear was still a rarity. From lists of clothing issued to convicts it appears that men were provided with none, and women with only a simple shift.[25] It was not simply because they were convicts that this was so. Emigrants' guides make it clear that, beyond shifts for women, underwear was not regarded as necessary. Thus Tegg's *Handbook for Emigrants* (1839) advised that prospective migrants would 'not be able to embark unless they have a sufficient stock for the voyage ... for men: six shirts, six pairs stockings, two pairs shoes, two complete suits of exterior clothing; for women six shifts, two flannel petticoats, six pairs stockings, two pairs shoes, two gowns.'[26] Apparently neither needed underdrawers. Similarly, *Mackenzie's Emigrant's Guide*, published during the goldrushes, listed as necessities flannels, shirts, trousers, hats, caps and stockings but not

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20 Quoted in Jane Grove, 'Victorian Respectability and the Etiquette of Dress', *Strata of Society*, *op. cit.*, 17-19 at 18

21 Cunnington and Cunnington, *op. cit.*, 66.

22 John McDonald, Insolvency Records 2/8655, File 28 (1842), State Archives Office of New South Wales.

23 John Fulton, Insolvency Records 2/8655, File 304 (1842), State Archives Office of New South Wales.

24 William Orde, Insolvency Records 2/8695, File 344 (1842), State Archives Office of New South Wales.

25 See Annette Salt, *These Outcast Women: The Parramatta Female Factory, 1821-1848* (Sydney: Hale & Iremonger, 1984), 72.

26 *Tegg's Handbook for Emigrants* (London: Thomas Tegg, 1839), 38.

drawers, with the reassurance that 'Gentlemen dress in the colony the same as in England'.[27] The detailed lists of clothing provided in 1840s insolvency records also made no mention of undergarments of any kind for men and only occasionally shifts or chemises for women.[28]

Until at least the beginning of the 'Victorian age', the major portion of the clothing of people of all classes in Australia, as much as in Europe and America, was outerwear. Within fifty years, this situation would be reversed, a change that had a major impact on the amount of work involved in cleaning and maintaining clothes. For it was not just that there was more underwear or that it was changed more regularly; it also had to be white and starched. Increasingly, coloured flannels and linens were replaced by white linen and cotton that required substantially more laundering. In 1850, the *Family Herald*, in a fashionable display of thermodynamic theory, explained away this impractical colour choice thus:

> Black absorbs heat better than white ... when the weather is cold it draws the heat out of the body more readily than white .... Hence we all wear white next the skin.[29]

The task of ironing was worsened by the fact that mass production of trims and laces, combined with the availability of the sewing machine, meant that petticoats and women's and children's drawers were increasingly heavily decorated.

Where once the labour involved in sewing tucks, lace and embroidery onto a garment would have made its price prohibitive, the sewing machine greatly reduced the time involved. Underwear could now be bought either ready-made, or if made at home, the time saved by the machine could be spent making garments more elaborate. Thus Fanny Suttor wrote to her mother in 1862:

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27 Eneas Mackenzie, *The Emigrant's Guide to Australia* (London: Clarke, Beeton & Co, 1852), 52, 53.

28 For example, the wife of the publican John McDonald had two silk gowns, two cotton gowns, four pairs of stockings, three petticoats, a pair of shoes, two nightgowns, two chemises, three aprons, a shawl and a straw bonnet. McDonald, *op. cit.*

29 Cunnington and Cunnington, *op. cit.*, 77.

> In the holidays I began learning the use of the sewing machine and got some calico to make Mary a nice tucked petticoat. If I possibly can I shall do it before I go home.[30]

By mid-century, middle-class colonial women were wearing as many as six petticoats. The outermost were the most elaborate and trimmed with embroidery, *broderie anglaise*, crochet or lace. Underneath was a plain white petticoat which might be also be ornamented with insertions, tucks and *broderie anglaise*, and one or two flannel petticoats and beneath them a knee length petticoat of stiff material. Of course, in addition to the petticoats, women wore camisoles, drawers and corsets. Such excesses led the *Englishwoman's Domestic Magazine* to comment in 1866:

> the amount of embroidery put upon underclothing nowadays is sinful; a young lady spent a month in hemstitching and embroidering a garment which it was scarcely possible that any other human being, except her laundress, would ever see.[31]

Although the crinoline reduced the need for a large number of petticoats, it also exposed them to view. The result was that petticoats and drawers became even more elaborate and by the 1870s it was reported that:

> Underclothing has reached a luxury unknown in any age. The most modest lady has now her chemise and drawers trimmed with flounces of real lace alternating with tucks, frills and insertions. A fashionable chemise looks like a baby's christening robe.[32]

As Eugenie McNeill recalled in her memoirs, they wore a 'great deal' of underwear 'all tucked, accordion pleated, flounced and frilled and as difficult as possible to launder.'[33] By 1900, the simplest trousseau offered by Anthony Hordern's included six chemises (three trimmed with frills and three with embroidery), six nightdresses, trimmed likewise, six pairs of drawers (three plain tucked and three with trimmed edging), four longcloth skirts (three with embroidered flounces), six longcloth chemises (three trimmed and three 'richly trimmed'), a flannel skirt and a pair of corsets.[34] All were white and all would have required considerable work to remain crisp and clean. Yet, for the most part, these garments were entirely useless.

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30 Fanny Suttor to her mother, 6 August 1862. Suttor Family papers, Bathurst. Private collection.

31 Cunnington and Cunnnington, *op. cit.*, 98.

32 *Ibid.*, 110.

33 Eugenie McNeil, *A Bunyip Close Behind Me: Recollections of the Nineties* (Ringwood: Penguin Books, 1982), 81.

34 *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1900]), 54.

Notions of class were closely tied to both the material and the presentation of personal dress. Furthermore, appearance took on a particular importance in settler colonies such as New South Wales where normal indicators of class could often either not be determined or were easy to disguise. Snowy white underwear and neatly pressed clothes made from fine fabrics were relatively inexpensive ways of laying claim to middle-class respectability. All that was required was an enormous amount of ironing.

2. 'What a Stupendous Task!': Ironing and Gentility in the Home

By the second quarter of the nineteenth century, a linen press groaning with vast quantities of white starched bed and table linen had become the symbol of the well managed colonial home. This was a result of the same factors that had contributed to the increase in white underwear and white clothing generally. As Mrs Everton recalled of her own childhood in South Australia:

> Most of all I loved [Grandma's] ... bed. A full tester covered and hung with a gathered frill of white starched calico around the top and bottom. What a stupendous task! - to iron all those yards of calico with flat irons heated in front of an open fire.[35]

By the time *The Workwoman's Guide* was published in 1837, even modest middle-class households were supposed to have sufficient stocks to warrant classification into bedroom linen, table and pantry linen, housemaid's linen and kitchen linen. In addition, the same fine distinctions between various qualities of material were made with household linen as with clothing. Thus best sheets were made from fine linen, 'family' from coarser linen, and servants' sheets from calico. The author recommended that bedrooms have three to four sheets for each bed and two pillowcases for each pillow. Each towel stand should have from six to twelve towels; each washstand, two to three covers. Table linen was all damask, with a recommended eight to ten breakfast cloths, eight to ten common table cloths, between one and three best cloths and three and six dozen dinner napkins, and the same quantity of breakfast napkins and doyleys. Finally, the well-equipped home should have six

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35 The Reminiscences of Mrs E.M. Everton, South Australian Archives MS., File D194/1-5.

to twelve dozen large tray cloths and the same number of small tray cloths. Pantry linen consisted of cleaning cloths and aprons, and housemaid's linen dusters and covers and pinafores (two to each maid).[36] Extensive though this list might be, it is significant that the *Workwoman's Guide* was addressed not to the bourgeois gentry but to 'Clergyman's Wives, young Married Women, School-Mistresses and Ladies Maids'.[37] Although it must be read as presenting the ideal, and should be taken as representative of what households aspired to rather than what they possessed, nonetheless it is clear that by the mid-nineteenth century this ideal involved a vast amount of beautifully starched linen.[38]

This growth in household linen cannot simply be attributed to falling material and production costs. Rather, it was directly related to the new status of the home and in particular to new ideas about domestic comfort. Whereas in the eighteenth century, working people would rarely have sat down to a cloth-covered table with food and beverages carefully laid out, within a few decades this had become commonplace.[39] In colonial Australia, particular importance was placed upon dining properly, even when in reduced circumstances.[40] Eliza Darling's *Simple Rules* contrasted comfort with discomfort through the example of a farm hand returning home to a carefully prepared meal laid on a clean cloth in front of a cheerful fire, while his unfortunate neighbour was forced to sit 'in one corner of the kitchen ... eating a piece of bread and cold bacon, no cloth laid, no appearance of comfort.'[41] As a result, the dining room took on a new importance and came to be as essential as the parlour.[42] Although writing for working families, 'An Old

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36 'A Lady', *op. cit.*, 178-185.

37 *Ibid.*, 46.

38 Patricia Branca compares Victorian domestic guides to *Vogue* in terms of the degree to which they reflect contemporary lifestyles. Patricia Branca, *Silent Sisterhood: Middle-Class Women in the Victorian Home* (London: Croom Helm, 1977), 14-19.

39 See Carol Shammas, 'The Domestic Environment in Early Modern England and America', *Journal of Social History*, 14(1),(1980), 3-24. Shammas argues that this is evidenced by the spread downwards through the social scale of ownership of the objects associated with dining: knives and forks, glassware, china and tea equipment. See also Barbara Carson, *Ambitious Appetites: Dining, Behaviour, and Patterns of Consumption in Federal Washington* (Washington D.C.: American Institute of Architects Press, 1990).

40 For an overview of changing attitudes to dining and the link to gentility see John F. Kasson, *Rudeness & Civility: Manners in Nineteenth-Century Urban America* (New York: Hill and King, 1990), 182-214.

41 'A Lady', *op. cit.*, 5, 8.

42 For the development of the dining room as a specialised room in the nineteenth century home see Cliffford E. Clark, 'The Vision of the Dining Room: Plan Book Dreams and Middle-

Housekeeper' cautioned her readers against eating in the kitchen 'however humble your home might be'. Instead, meals should be taken in the dining room, with a clean tablecloth and attractively laid table:

> You should always dine in such neat order that you would not feel abashed if all the friends you have in the world entered the room in a body.[43]

Even Mrs Rawson, who expected her readers to cook in a colonial oven and make their copper out of a kerosene tin, nonetheless placed great importance on 'dainty little dinners and luncheons'. She provided detailed directions for the setting and decoration of the table: a colour scheme should be decided upon, flowers carefully arranged, bread and butter plates and wine glasses laid round, regardless of whether there actually was wine, and napkins 'prettily folded'. For, 'as every experienced hostess knows, the table decorations and appointments are everything towards success.'[44]

With such emphasis placed on proper dining, laying the table became an onerous chore. The domestic servant, Evelyn Barwick, often complained about the fuss her mistresses made over the proprieties of dining that were to be observed no matter what:

> It was so nice. I had only to lay the table for dinner, as there was but one to set at table, but I had to go in the same as usual to hand the dishes round and draw the porter. Nancy and Doris [the children] dine in the same room as Mr and Mrs Finlay do, but at a different table, so I have to take meat and vegetables to them from off the principal table, and pudding also, and Maggie Stevenson [the cook] comes in to cut up their meat, and help them to potatoes and rice, etc.[45]

Paintings of nineteenth century interiors reveal that dining together at a well-ordered and attractive table had become a powerful symbol of domestic harmony. Thus Charles Hill's painting of his own family shows all seated around a generously laden table covered in a snowy white cloth (Plate 33).[46] The Neville-Rolfe family (as painted by Harriet Jane Neville-Rolfe) were seated at a damask covered table laid with silver and decorated with flowers — on a station in remote western Queensland (Plate 13). At their far more humble out-

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Class Realities', in Kathryn Grover (ed.), *Dining in America* (Rochester: University of Massachusetts Press, 1987), 142-172.

43 'An Old Housekeeper', *op. cit.*, 32, 81.

44 Mrs Lance Rawson, *The Antipodean Cookery Book and Kitchen Companion* (Melbourne: George Robertson & Co., 1895), 32, 33.

45 Evelyn Barwick Diary, 1 August 1889 in Heather Ashford (ed.) *The Diary of Evelyn Barwick* (Scone: Scone and Upper Hunter Historical Society, 1988), 57.

46 Charles Hill, 'The Artist and His Family', c. 1870 in Terence Lane & Jessie Serle, *Australians at Home: A Documentary History of Australian Domestic Interiors from 1788 to 1914* (Melbourne: Oxford University Press, 1990), 148, 149.

station, where the bush was visible through holes in the chimney and where canvas shutters served as windows, guests still sat at a table covered in white linen (Plate 34).[47]

As a well laid table was a sign of domesticity, so were sheets on the bed. This was another relatively new fashion, yet once realised was clung to assiduously. The overwhelmingly male culture of the goldrushes served to highlight the contrast between the feminine domestic ideal and the far more rudimentary material culture of male 'domesticity'. Thus, writing from the goldfields in 1852, James Bonwick celebrated what little evidence he could find of the former:

> When I passed a tent in which there was a swept floor, a bit of furniture, nicely washed plates, bright pannikins, a sheet to the bed with a clean counterpane over, with here and there a sack or piece of carpet laid down, I knew that the genial influence had been there.[48]

In a short story by Mrs Lance Rawson, a young woman journeyed to the country to take up a position as housekeeper at 'The Bushman's Rest'. She was distraught to discover that rather than being a station, it was a public house, and a badly managed one at that. Her horror at her circumstances was fully realised when climbing into bed in a dirty, poorly lit room she discovered there were no sheets to the bed and no cover to the pillow.[49]

Such marks of gentility were not achieved without sacrifice, and the lengths to which women went in achieving what they thought necessary indicates the importance of household linen in defining social aspirations. Mrs McPherson, for example, cut up her white muslin dresses to make bedcurtains. Though living in a simple wooden hut, it was important to her that certain standards were maintained, and once curtains were made and hung she reported that, 'We were quite snug, and I was happy.'[50] Millie Weston had few clothes and

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47 Harriet Jane Neville-Rolfe, 'Breakfast, Alpha 1884', and 'Lanark Outstation, June 1884', *ibid.*, 186, 187. Lane and Serle's book has numerous examples of the white tablecloth including an extraordinary photograph taken in far north Queensland with a group of men all dressed in starched white shirts (admittedly some with their sleeves rolled up) drinking a toast around a table laden with champagne bottles, pineapples and cakes laid out on a snowy (if short) white tablecloth. 'Houseguests, Farnborough Sugar Mill', c. 1895, *ibid.*, 272.

48 James Bonwick, *Notes of a Gold Digger and a Gold Digger's Guide* quoted in Murray Walker, *Pioneer Crafts of Early Australia* (Melbourne: The Crafts Council of Australia, 1978), 63.

49 Mrs Lance Rawson, 'The Bushman's Rest' in Mrs Patchett Martin (ed.) *Coo-Ee: Tales of Australian Life by Australian Ladies* (London: Richard Edward King, 1891), 207.

50 Quoted in Lane & Serle, op.cit., 61.

little money when she married, yet she realised her aspiration to have at least the beginnings of a linen closet:

> I had no trousseau, oh well I had, I did have serviettes I'd bought and then I got into trouble when I told them the price. I paid twenty-five shillings for a dozen linen, I've still got them ... beautiful linen. When you iron them wet they come up beautifully.[51]

The possession of household linen had become a defining quality of the respectable colonial home. It is apparent that the same notions of class that emerged in relation to 'appropriate' dress, also influenced the development of ideas about respectability and comfort in the home, ideas that would come to define domesticity itself.

3. 'Making Your Husband Happy': The Creation of a New Household Chore

The close relationship between neatly pressed clothing and household linen and 'respectability' made the iron as much a necessity as laundry tubs. Auction notices of the 1840s, reveal that households which had only the most basic equipment to do the wash, nonetheless had a range of specialised irons to ensure it was perfectly ironed. Thus, the household of W. Hustler undertook the washing with the aid only of a set of three wash tubs, yet had two smoothing irons and an Italian iron;[52] Henry Ginn had two flat irons and Italian irons but only two tubs and buckets;[53] similarly, Justice Therry had two smoothing irons, buckets and four tubs.[54] The laundry of J.N. Smith had smoothing irons, box irons and Italian irons to ensure that a wide range of materials could be ironed, but all were washed with the aid of only three tubs.[55] Typically, therefore the colonial household was

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51 Transcript of Millie Weston Interview by Judy Wing, Bicentennial History Project, 15 and 29 September 1987, 38. National Library of Australia MS. Millie Weston was born in 1893 and her father owned the Perth Steam Laundry in Balmain. After her parents death she continued to work there until her marriage in the 1920s.

52 *Catalogue of Elegant Household Furniture: Flinton House, Glenmore Rd., Late Residence of W. Hustler* (Sydney: Kemp and Fairfax, 1845), 7.

53 *Elegant Household Furniture: Henry Ginn* (Sydney: Kemp and Fairfax, 1846), 15, 16.

54 *Catalogue of Furniture, Plate, Plated Goods &c.: The Property of His Honour Mr Justice Therry* (Sydney: Kemp and Fairfax, [1847]), 9.

55 *Catalogue of New & Elegant Rosewood & Mahogany Furniture: The Residence of J.N. Smith, No. 158 Elizabeth Street, Hyde Park* (Sydney: Kemp and Fairfax, 1848), 8.

characterised by a marked contrast between the simplicity of tools for washing and the sophistication of those for ironing.

Furthermore, this situation did not change markedly over the next half century. Published in 1885, 'An Old Housekeeper's' *Australian Housewive's Manual* equipped the laundry with merely a washing board, tubs and clothes basket but stated that three flat irons were a necessity.[56] Likewise, although admitting that she had neither laundry nor copper to ease the burden of the wash, Mrs Rawson gave detailed directions for making an ironing board and recommended a box iron as 'a very great improvement on the common flat iron for shirt collars, &c.'.[57] The small value of these irons — a set of smoothing irons could be bought in 1895 for as little as 3s. 9d.[58] — meant that only one reference was found to them in the insolvency records: George Everingham, a farmer of Carr's Creek, had two flat irons and an oven for heating them on.[59] However, analysis of auction notices from the 1920s reveals that the pattern evident in the 1840s — of owning a range of specialised irons — prevailed well into the twentieth century. In 1928, the household at 'Warrawee' in Toorak was still washing with the aid of only tubs and a washboard but had an electric iron;[60] 'Waverley' in Adelaide had a gas iron and three flat irons;[61] the home of Hector MacDonald with the added benefit of a copper, wringer and mangle had even more sophisticated ironing equipment and in addition to four electric irons, had a gas ironing stove and a set of smoothing irons.[62] But the most well-equipped was 'Benvenuta' in Carlton which had two electric irons, five flat irons, a box iron and a set of Mrs Potts irons.[63]

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56 'An Old Housekeeper', *Australian Housewive's Manual* (Melbourne: A.H. Massina & Co., 1885), 15.

57 Mrs Lance Rawson, *Cookery Book and Household Hints* (1878)(Rockhampton: William Hopkins, 1886), 8.

58 *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1895]), 442.

59 George Everingham, Insolvency Records 2/10,402, File 22452 (1888), State Archives Office of New South Wales.

60 *Catalogue of the Contents, Warrawee, Toorak* (Melbourne: K. Gardner & Lang [1928]), 30.

61 *Catalogue of the Contents, Waverley, Barton Terrace, Adelaide: The Property of the Late L.A. Jessup* (Adelaide [1925]), 57.

62 *Catalogue of the Contents, 241 Domain Road, South Yarra: The Property of the late N.J. and Hector MacDonald* (Melbourne, 1934), 27.

63 *Catalogue of the Contents, Benvenuta, Carlton: The Property of the Late Leah Abrahams* (Melbourne, [1925]), 33.

There was little debate in the second half of the nineteenth century about the technology of the iron. Where other new tools like cooking stoves and washing machines were still undergoing considerable re-working in the attempt to find the best way to do the job, the materials, design and fabrication of the iron were fixed as early as the 1840s. What experimentation that took place was with improving the heat source and ironing practice. Whereas washing machines continued to be an area of lively patenting activity throughout the period, there were far fewer patents for irons and those that were registered focussed on minor improvements to an already well established form.[64] Thus, John Athens registered a patent for 'constructing flat-irons hollow, the inner part being so arranged as to burn fuel'; and George Weichmann patented a 'self-heating and revolving' smoothing iron in 1880.[65] The same year, the Melbourne ironmonger, T. & C. Clark, advertised a 'new' sad iron with the claim that it had:

> an improved Curved Handle ... which is very much liked in the laundry, as there are no sharp corners to hurt the centre of the hand, and as the handle slants slightly from toe to heel, it is not so trying on the wrist to use as those with handles in a perfect straight line.[66]

Such improvements made no impact on the work involved. Neither curved handles nor revolving flat irons would significantly reduce the time taken to transform a family's wash into a pile of neatly pressed, starched and ironed linen. But, as the success of the Mrs Pott's iron demonstrated, women were not looking for time and labour-saving when they bought an iron.

The name 'Mrs Potts' has become synonymous with ironing itself. These irons were treasured by families and passed down the generations.[67] In the 1980s, Meg Sekavs described her 'Mother Potts' irons:

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64 Of twenty five patents registered for 'Washing, Wringing, Ironing, Scouring, Scrubbing etc.' between 1887 and 1891 only one related to ironing; and of the sixteen registered in the following five years, only one was for an ironing machine. *Index to New South Wales Letters Patent Registered 1 August 1887 - 31 December 1891* (Sydney: Government Printer, 1894), 575-578, 691-697.

65 *New South Wales Indexes to Patents 1854-1891* (Sydney: Government Printer, 1892), 574.

66 T. & C. Clark, *op. cit.*, np.

67 Quoted in Diane Bell, *Generations: Grandmothers, Mothers and Daughters* (Fitzroy: McPhee Gribble/Penguin Books, 1987), 18.

> I've still got two, which I've covered. They became so worn in the middle that they were dangerous to use. We bent a piece of conduit and fitted it underneath them because it was too dangerous with the handle .... I've covered them, and they stand by the doors, as door stops. I won't part with those.

Invented in 1871 by Mary Florence Potts of Ottumwa, Iowa, these had solved the problem of the handle becoming hot whilst the irons heated. A detachable wooden handle was sold with a set of three irons and a stand. Promoted as 'handsome' wedding presents, by 1898 their manufacturer thought them 'so well and favourably known' as to require only the briefest description.[68] Although their low cost meant they were not separately listed in the insolvency records, their popularity is evident from the 1920s auction notices where Mrs Potts can frequently be found. Even when households like 'Wongern' in Woollahra had an electric iron, they kept their Mrs Potts as well.[69]

The range of irons listed in inventories and auction notices was the result of increasing complexity in the task of ironing. Where once a single iron would have been sufficient, by the second half of the nineteenth century it was necessary to own a range of irons suited to different materials. Box irons, which Mrs Rawson described as 'invaluable to the housewife whose time is required for other things beside ironing',[70] were recommended for the fine work involved in pressing shirt collars and fronts. Italian irons, which were different sized tubes mounted on a pedestal and heated by a poker, were used for ruffles. Goffering irons looked like mangles and had corrugated rollers suited to frills and lace.[71] Table cloths, household linen and general clothing required flat irons, which came in different weights according to the type of material. The Enterprise Manufacturing Co. advised that the No. 1, weighing four pounds should be used for light work; the No. 2, at five pounds, was for general use; and the No. 3, at six pounds was for 'table cloths, sheets etc.'.[72] Thus, whilst at

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68 Helen Louise Johnson, *The Enterprising Housekeeper* (Philadelphia: Enterprise Manufacturing Co., 1898), np. Warshaw Collection of Business Americana, Smithsonian Institution.

69 *Catalogue of the Contents, Wongern, Wyuna Rd, Woollahra: The Property of H.B. Griffin* (Sydney, 1926), 33.

70 Rawson, *op. cit.*, 7.

71 For a more detailed description of the different types of irons see Hardyment, *op. cit.*, 69-71; Jewell, *op. cit.*; and Judy Politzer, *Early Tuesday Morning: More Little Irons and Trivets* (Walnut Creek: Frank Politzer, 1986).

72 Trade Card, *Cold Handle Sad Irons: Enterprise Mfg. Co. of Philadelphia* (Philadelphia: Enterprise Mfg. Co., 1876). Warshaw Collection of Business Americana, Smithsonian Institution.

the beginning of the century, the English ironmongers, Kendrick and Sons, had produced only a handful of different irons, by 1836, they had twenty-seven different kinds and by 1876, thirty-nine.[73] At the 1880 International Exhibition in Melbourne, the local ironmonger T. & C. Clark had eight sizes of Italian irons, ranging in price from 11d. to 1.s. 4d., seven sizes of charcoal box iron, from 5s. to 7s. 3d., and six different sizes of sad iron costing from 1.s. 4d. to 2.s. 8d. They also sold piping irons, button, egg and mushroom irons.[74]

The inevitable consequence of such high levels of specialisation was the development of an extensive literature about the 'proper' way to iron. It is significant that the proponents of domestic economy, who are so often regarded as central to the adoption of labour-saving appliances in the home, in fact produced new and extremely complex work practices concerning a task that less than a century earlier had been almost completely unnecessary. In 1897, Mrs Rawson published *The Australian Cook and Laundry Book* with the advice that: 'the section on laundry work will be appreciated by many a young housewife, who will find the labour and worry of washing day considerably lightened if she follows the instructions herein given.'[75] An extract demonstrates the complexity with which this simple task was now being approached:

> It is best to starch your shirts at least four or five hours before ironing. To iron them be sure your irons are clean and hot, if they are not your shirt will be smudged. Do the cuffs first, on the right and wrong side too, bearing upon the irons well, and going over the cuff back and forth till a good gloss appears. To do the fronts, it is best to have a board just the size of the shirt front .... Cover it first with a flannel, then with a white cloth, and when about to iron the front slip it under it, smooth out all the creases and go over it carefully with a very hot iron ... Elbow grease has a lot to do with glossing a shirt front .... Collars are done in the same way.[76]

The reader cannot have been reassured by Mrs Rawson's warning that, despite following her directions, 'an inexperienced hand is sure to spoil her work a few times before she becomes clever at it.'

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73 See Davidson, *op. cit.*, 158 and Jewell, *op. cit.*, 9.

74 *James McEwan & Co's Illustrated Catalogue of Furnishing & General Ironmongery* (1880)(Sydney: Hale & Iremonger, 1983), 138-140.

75 Mrs Lance Rawson, *Australian Cook and Laundry Book* (Melbourne: J.W. Knapton & Co, 1897), Preface, np.

76 *Ibid.*, 108.

Although Mrs Wicken's *Handbook of Domestic Economy* devotes only one chapter to ironing, she clearly felt that 'The proper management of this department of domestic economy will add very much to the comfort of the family.'[77] When Domestic Economy and Cookery were first taught at Sydney Technical College in the 1890s, a separate section was devoted to ironing with special lectures on 'Cold starching' and 'Ironing shirts and blouses'. [78] Even after electric irons became available, a highly specialised approach to the task remained. When Thelma Graham studied Home Economics at the College in the 1920s, several lectures were devoted to the different types of irons and their best use. Her text book spent six pages giving detailed directions on preparation, rules — 'lift iron as little as possible, and do not thump down'[79] — and techniques for different types of garments. And her workbook reveals many hours spent making paper models to demonstrate the best way to fold clothes once they were ironed (Plate 35).[80]

As with gadgets, there was little attempt to 'romance' the iron, which for the most part remained unadorned and decidedly industrial in appearance. But, unlike gadgets, this did not lead to their rejection by the Australian housewife, for with ironing it was not the tools that were 'romanced' by the domestic ideal but the work process and the finished product. So important had perfectly ironed garments and linen become that not only was the task of ironing extremely complex, but also it could not be entrusted to either commercial laundries or to ordinary paid help. Indeed, the ability to iron the white dresses that were so fashionable by the 1880s, had become the mark of a good servant. In a short story by Mrs Lance Rawson, a wife instructed her husband that in seeking a new servant, 'Be sure you ask her if she can wash, and get up [iron] shirts and white dresses.'[81] In 1910, an immigrants' guide to New South Wales assured the prospective settler that:

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77 Mrs Harriet Wicken, *The Australian Home: A Handbook of Domestic Economy* (Sydney: Edwards, Dunlop & Ball, 1891), 177.

78 *Calendar of Sydney Technical College for 1892* (Sydney: Charles Potter, 1892), 69.

79 *Common-Sense Laundry Book* (Sydney: George B. Philip & Son, [1926]), 44-50.

80 Thelma Graham, Laundry 1st Year (1926), Workbook. Museum of Applied Arts and Sciences MS.

81 Mrs Lance Rawson, 'Jack Hanmer's Sad Story: A True Tale of the Queensland Bush', in Mrs Patchett Martin (ed.), *op. cit.*, 110.

> as soon as she has been so far trained that she can iron a white dress, cook a three course dinner, and has an ordinary knowledge of general housework, she is worth, either in the country or the suburbs ... £30 to £40 a year.[82]

But such paragons of domestic help were not often to be found. In the *Laundry Book*, Mrs Rawson warned 'I would not advise [the box iron] being entrusted to the ordinary Bush domestic, or indeed to any one save the mistress or daughters of the house, because they must be kept spotlessly clean and free from rust.'[83] Thus, Rachel Henning wrote to one of her sisters:

> We have been doing a little ironing lately, for our washerwoman has departed ... and Biddy, a black gin, washes at present .... We have such a very easy life here that this does not hurt us.[84]

Clearly, Aboriginal servants were not thought 'up to' the complicated task of ironing (Plate 29).

No precise figures exist for the amount of time it took to do a household's ironing. An 'Old Housekeeper' estimated that the washing for a married couple should take three to four hours and the ironing about the same. Mangling sheets, towels, pillow-cases, napkins, and table cloths would reduce the load, 'although [tablecloths] ... will generally require ironing afterwards to give them the proper gloss. The mangling will make the ironing a very easy process.'[85] Heidi Hartmann calculated that in the first decades of the twentieth century women were spending four hours on the wash and a further two on ironing.

By the second half of the nineteenth century therefore, irons were as necessary to the colonial home as parlours and equally as important in defining 'respectability'. Just as the parlour did not answer any practical need for family living space, but rather provided a 'stage' upon which its members could act out their accomplishments, so clothing and linen were starched and ironed for reasons of gentility rather than necessity. Furthermore, the importance of properly ironed clothes and linen meant that the same conservatism that

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82 *New South Wales: A Land of Opportunity for Domestic Servants* (Sydney: Immigration and Tourist Bureau, 1910), np.

83 Mrs Lance Rawson, *The Antipodean Cookery Book and Kitchen Companion* (Melbourne: George Robertson & Co, 1895), 7.

84 Rachel Henning to her sister Etta, 27 January 1863 in David Adams (ed.), *The Letters of Rachel Henning* (Ringwood: Penguin Books, 1979), 124.

85 'An Old Housekeeper', *op. cit.*, 89, 90.

was evident in food preparation could also be found in ironing. Traditional work practices survived well into the twentieth century and were unaffected by the emergence of the new power source, electricity. Indeed, the response of manufacturers and consumers to opportunities afforded by 'electric' ironing reveals much about the means by which the domestic ideal so successfully romanced both the work process and the machine.

4. 'An Absolute Summer Necessity': New Power Sources

The abiding problem of smoothing irons was their potential to soil clean linen with smuts and soot from the stove. As one woman recalled of the Mrs Potts:

> There were three in the set and they always had to stay on top of the oven. You'd have to rub them a little bit before you started to iron because there would always be a little bit of smoke coming through from the wood fire.[86]

A cleaner fuel source was thus a major area for innovation and in the course of the nineteenth century charcoal burning irons were introduced, followed by paraffin and kerosene.[87] When gas became available as a source of domestic lighting, American and British companies began using it as a potential heat source for the iron. Initially, irons were heated by being placed on a stand over a gas burner but soon manufacturers began experimenting with gas burning irons.[88] In 1854, an American, James Willcox, patented a gas 'self heating smoothing iron':

> Being heated by ... GAS, introduced through an elastic tube, it precludes the necessity of a fire in the house in warm weather, and no more *'Roasting of Human Sacrifices over hot coals'* is required.[89]

A surviving flyer for the English 'Radiant Flat Iron' shows a maid using an iron with two gutta percha tubes going into it; one attached to the gas light on the wall and the other to a bellows which supplied the air. The company claimed that the iron heated up in two minutes and its temperature was readily controlled by turning the gas on or off. However,

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86 Quoted in Jennifer Isaacs, *Pioneer Women of the Bush and Outback* (Sydney: Landsdowne Press, 1990), 62.

87 See Jewell, *op. cit.*, 11-13; and Hardyment, *op. cit.*, 71-73.

88 Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (1946)(New York: W.W. Norton & Company, 1975), 571- 576.

89 *Self-Heating Rotary Smoothing Iron* (Philadelphia: James Willcox, 1858), np. Warshaw Collection of Business Americana, Smithsonian Institution.

despite their assertion that the 'Radiant' made ironing pleasant — combining as it did 'convenience, comfort and economy' — the absence of a thermostat control and the ever-present fumes of burning gas meant it was not surprising that the gas iron was far from a runaway success.[90] As Floss Haig recalled a half century later:

> There was a tap on our gas stove just before the jets, which you connected with a piece of tube to the iron. Then you would light the tap ... wait for it to get hot, then disconnect the iron. It was exceedingly dangerous.[91]

The gas iron's popularity was further hampered by the limited availability of gas supplies in nineteenth century Australia. Although domestic gas lighting was introduced in Sydney in the 1840s, the major supplier was reluctant to provide gas to working-class areas, believing that the payment of quarterly accounts would be beyond householders' means.[92]

However, if gas irons produced a muted response, this was not the case with electric irons. Instead, they were amongst the earliest applications of electric power in the home. One of the first patents was granted to H.W. Seely of New Jersey in 1882. Electric irons were displayed at the World Columbian Exhibition and by 1904 were commercially manufactured in the United States by Hotpoint.[93] Within twenty years, sixty-four per cent of American households surveyed had an electric iron,[94] and in some states ownership had become almost universal.[95] Although, in general, Australians made less use of electric appliances than their American cousins, their response to the iron was unambiguous. In 1923, seventy-five per cent of Victorian homes wired for electricity had electric irons.[96]

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90 This flyer was distributed at the Philadelphia Centennial Exhibition in 1876. *The Radiant Flat Iron* (York: Oakley & Keating, 1876). Warshaw Collection of Business Americana, Smithsonian Institution.

91 Floss Haig, quoted in Bell, *op. cit.*, 17.

92 Rosemary Broomham, *First Light: 150 Years of Gas* (Sydney: Hale & Iremonger, 1987), 75. See also Ruth Barton's discussion of the use of gas irons in Western Australia in Ruth Barton, 'Household Technology in Western Australia, 1900-1950', *Oral History Association of Australia Journal*, No. 7 (1985), 108-129 at 114, 115.

93 Hardyment, *op. cit.*, 73.

94 This compared to thirty-three per cent having an electric vacuum cleaner and twenty-five per cent with an electric washing machine. Mary Sherman, 'Heat and Light in America's Homes', *Women's Home Companion*, 54(1),(1927), 94.

95 By 1925-1927, ninety-two per cent of Oregon homes had an electric iron. Heidi Hartmann, Capitalism and Women's Work in the Home, 1900-1930 (Unpublished PhD Dissertation, Yale University, 1974), 160.

96 This compared with twenty per cent with electric radiators, seven per cent fans, two per cent vacuum cleaners and one per cent toasters, kettles and lamps. Colin Foster, *Industrial Development in Australia, 1920-1930* (Canberra: Australian National University Press, 1964), 104.

Three years later, the *Australasian Electrical Times* calculated that the potential market for electric irons was one hundred per cent of all consumers.[97] Ruth Barton found in her study of domestic technology in Western Australia that, whatever their economic situation, families bought electric irons as soon as the electricity was connected.[98] In 1928 there were 13,291 electric irons in use in Victoria, compared to 506 electric stoves.[99] A 1955 survey of domestic appliance ownership found the electric iron to be the only one with almost complete market penetration. In Sydney and Melbourne, ninety-nine per cent of homes surveyed had an electric iron, and in Brisbane, ninety-eight per cent.[100]

Of course, this success can be attributed in part to cost, since the electric iron was comparatively inexpensive. Between 1923 and 1948, the price ranged between a tenth and a third of the average male weekly wage.[101] But price alone is not sufficient explanation. A 1931 advertisement, 'Give Hecla Electric Gifts this Xmas' promoted the Hecla Toaster, Iron and Boilo-Jug, all selling for 25s. 6d.[102] Yet, as the annual report of the Victorian State Electricity Commission noted in 1928, there were fifty-four times as many households with irons as with toasters, and thirteen times as many with irons as with kettles.[103] Nor was it the case that the iron was simply the first electrical appliance to be purchased, with the kettle and toaster following quickly behind, since this imbalance persisted for over half a century. Furthermore, time and labour-saving cannot have been arguments used to support its purchase. Electric irons did not have a thermostat until the 1940s, and thus the time saved in walking back and forth to the stove to re-heat irons, was at least partly used in switching

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97 Compared to eighty per cent for washing machines; seventy per cent for ranges; sixty per cent for toasters and fifty per cent for ironing machines. *Australasian Electrical Times*, 27 January 1926, 38.

98 Barton, *op. cit.*, 116

99 *Australasian Electrical Times*, 27 November 1928, 860. The second most popular electric appliance was the radiator (5,934), followed by the kettle (1,208).

100 This was followed in popularity by the console or mantle radio (eighty-four per cent), the sewing machine (eighty-one per cent) and the refrigerator (seventy-six per cent). The Council for Advertising Research in Australia, *Home Appliances, 1955: Survey of Ownership* (Sydney: The Council for Advertising Research in Australia, 1955), Table 1, np.

101 Ruth Barton has calculated that in 1923 it was 0.3 of the average male weekly wage; in 1928, 0.2; in 1933, 0.3; in 1938, 0.1; and in 1948, 0.2. Barton, *op. cit.*, 125.

102 *Australasian Electrical Times*, 27 November 1931, 449.

103 *Australasian Electrical Times*, 27 November 1928, 860.

the electricity on and off. Indeed, a 1970s survey of 121 American families found that there was no difference in ironing time between households using a flat, gas or electric iron.[104]

The electric iron was purchased because the production of perfectly ironed clothing and linen was a key household task. Any new product that did the job better, and more 'comfortably', was almost automatically desirable. Cost was simply not a consideration. By eliminating the threat of soots, the electric iron guaranteed a better product with less anxiety. And, without the need for a fire to heat the irons it was, as the manufacturers claimed, 'An absolute summer necessity. A comfort to housewives. No broiling hot Kitchen to contend with.'[105] Even more importantly, there was no revolutionary change implicit in the adoption of the electric iron. Despite the potential offered by an entirely new heat source, the designers and manufacturers of electric irons made no attempt to rework the iron. Instead, the electric iron of the 1920s looked exactly like its 1870s counterpart. Even the weight of the iron was the same, with the standard electric iron weighing the same as a standard 'Mrs Potts', despite the fact that it was heat, not weight, that produced well ironed clothes (Plate 36).[106]

The conservatism of the household about work tools as well as practice is evident in the failure of the ironing machine to attract a market of any significance. This combined the principles of the mangle (a press) and the iron (heat) to produce a surface that could efficiently iron linen and clothing more evenly and at a greater rate than its hand held equivalent. As Christine Frederick pointed out in 1922, 'Now isn't it foolish to iron a tablecloth, an area of about 18,000 square inches, with a heated tool measuring only 24 inches?'[107] The solution was the ironing machine. Yet ownership of ironing machines has remained negligible. For it is only by ironing each piece individually that women believe the job is done properly. The romancing of ironing as a work process has meant that only

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104 Hartmann, *op. cit.*, 247.

105 'Hotpoint Electric Irons', *The Sunday Times*, 27 October 1918, quoted in Barton, *op. cit.*, 116.

106 In 1926 the 'Falco' Electric Iron weighted 5 1/2 lbs and the 'Hotpoint' 6 lb. W.S. Friend and Co., *op. cit.*, 27.

107 Quoted in Giedion, *op. cit.*, 573.

traditional tools can be trusted to do the job and any attempt at re-casting into a more efficient, 'scientific' mode has been rejected.

Conclusion

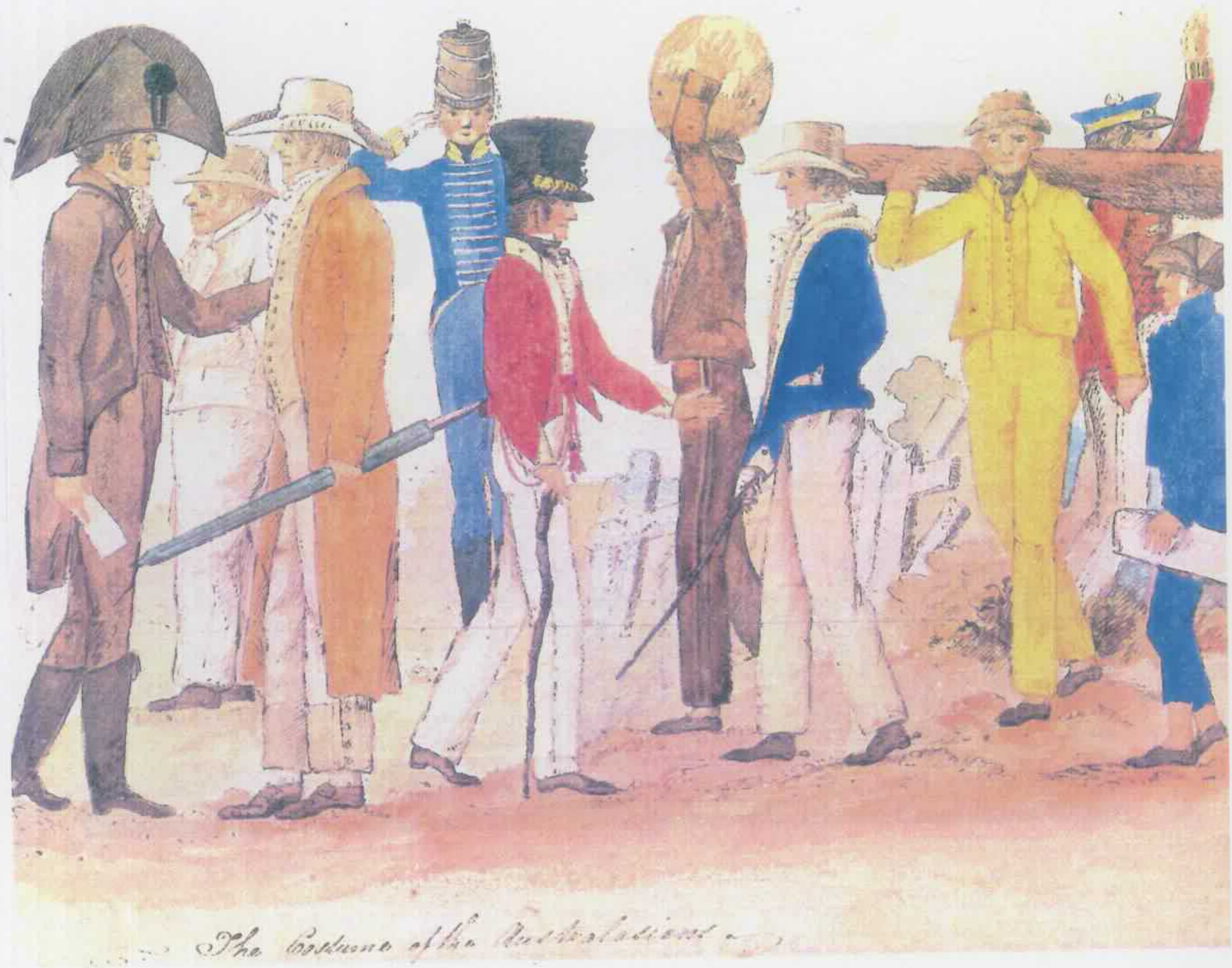
The history of the iron demonstrates the overriding importance of social and cultural factors in determining the nineteenth century Australian households' response to new technologies. Where washing machines were greeted with muted interest, irons were enthusiastically embraced, despite the fact that there was no practical need for ironed clothing and linen. Even though commercial laundries offered a realistic alternative to doing the ironing at home, the task had become so essential a part of the domestic ideal that it could only properly be undertaken by the women of the house. Even a simple re-thinking of the task, and re-casting of its tools, was unacceptable.

The sheer hard work involved meant that ironing could rarely be seen as 'feminine', but, together with washing was undeniably women's work. And if images of women doing the ironing, such as Frederick McCubbin's painting 'Home Again' (1884) (Plate 37), could not be seen in the same romantic light as a women sewing, the romance came when she donned the stiffly starched white petticoat or sat down at a beautifully ironed damask tablecloth.

The final technology to be discussed is the sewing machine. Unlike the iron, which was sufficiently small and inexpensive so as not to require any romantic transformation, the sewing machine did pose a threat to the home as sanctuary from the world of machines. Yet it was the most successful domestic technology to enter the nineteenth century home, both in terms of its market penetration and as regards its popular perception. This success can easily be read as the triumph of the values of the factory in the home — of efficiency and time and labour-saving — however the history of the sewing machine reveals that these

factors had little influence on a household's decision to buy a machine. Once again, it was social and cultural factors that predominated, ensuring the sewing machine's continued use long after it had become more economical to buy clothes ready-made than to make them at home. But, more importantly, as the following chapter reveals, the transformation of this machine into an essential part of the 'family circle' provides conclusive proof of the homes ability to romance the machine.

Plate 32



The Costume of the Australasians, watercolour by Sophia Campbell, c. 1817. Private collection.

Sophia Campbell lived in Sydney and often must have come across such a group of men in her walks and drives around the town. Joan Kerr has identified the two soldiers as belonging to Macquarie's 73rd regiment, and the gentleman on the far left with cocked hat and white collar and neckcloth as being the Governor's aide-de-camp. The fine class distinctions so evident in this painting serve as a reminder of the importance of clothing, and particularly linen, in defining social status.

Plate 33



The Artist and His Family, oil painting by Charles Hill, c. 1870. Art Gallery of South Australia.

The Hill family dinner shows all the signs identified by Kenneth Ames as indicative of the new importance of dining in the nineteenth century. The table has been laid with a carefully starched and snowy white cloth, and matching glasses, silverware and plates have been arranged in an orderly manner. Eating together as a family has thus become a powerful symbol of domestic harmony.

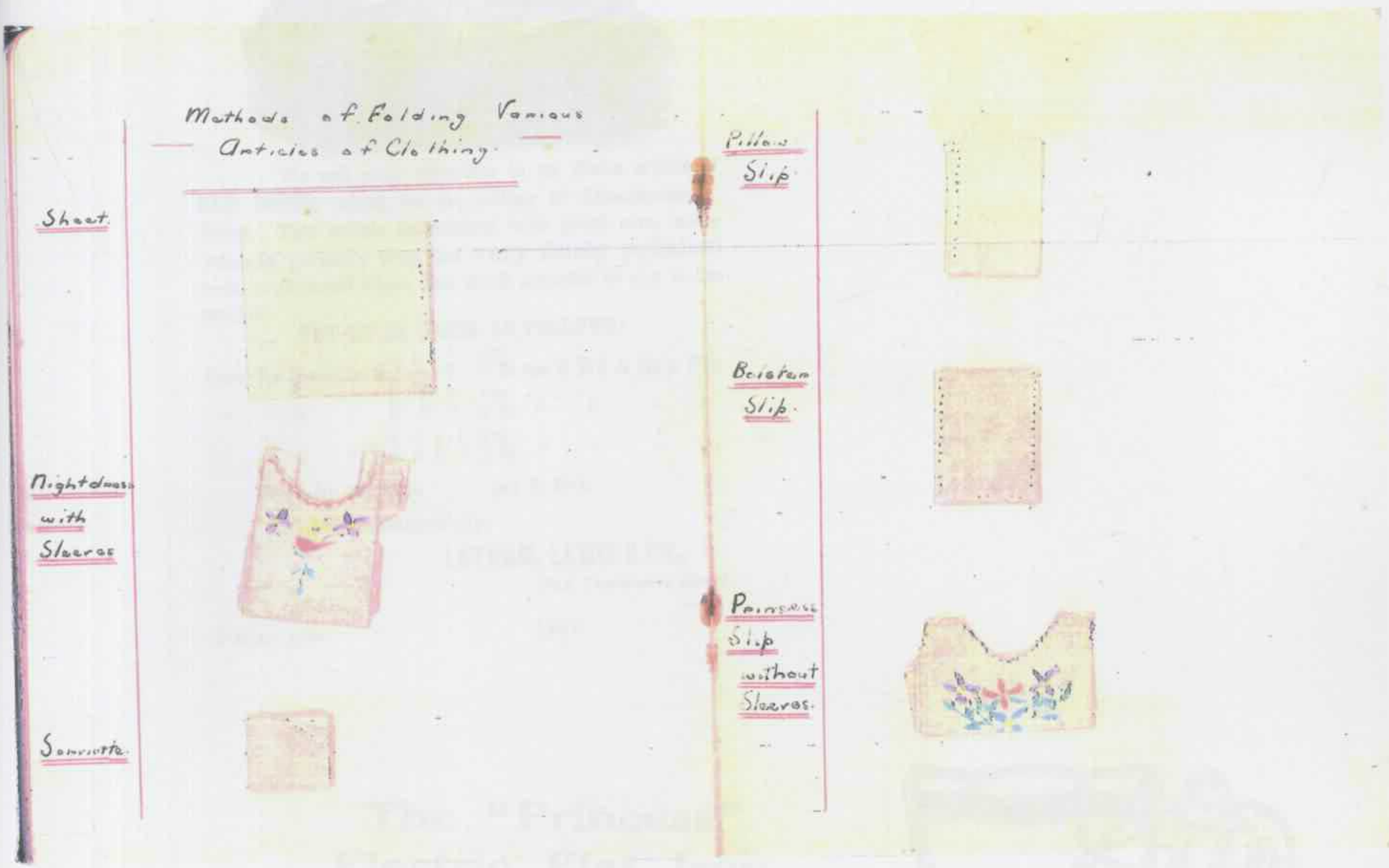
Plate 34



Lanark Outstation June 1884, watercolour by Harriet Jane Neville-Rolfe. Queensland Art Gallery.

Harriet Neville-Rolfe has painted her brother and sister in law being entertained at their far more makeshift adjoining station, Lanark. Yet despite the crudely finished hut and basic furnishings, a pressed white tablecloth has still been found for the table, ensuring that this, the most basic of middle-class proprieties, has been met.

Plate 35



Laundry First Year, a page from the workbook of Thelma Graham, 1926. Museum of Applied Arts and Sciences.

The teachers who taught Thelma Graham Home Economics at Sydney Technical College had clearly elevated ironing almost into an art form. This is just one of a number of pages given over to the correct way to iron and fold clothes and linen. Paper models of different types of clothes and linen have been carefully constructed, folded correctly and pasted in.

Plate 36

IMPROVED SAD IRON.



We call your attention to an *Extra* article of **SAD IRONS,** which we are selling at Manufacturers' Price. This article is finished with great care, being ***Planed*** perfectly true, and **very finely polished** both on face and edge; and much superior to any in the market.

PUT UP IN CASES AS FOLLOWS:

Case No. 1 contains				6 5	8 6	6 7	pr. lb	ass'd	R'd & Sh'p	P'ts.	
"	"	2	"	4 5	6 6	6 7	4 8	pr. lb	"	"	"	"
"	"	3	"	4 4	6 5	6 6	4 7	2 8	pr. lb	"	"	"	"

Price by the Case per lb Net.

Respectfully,

LATHAM, LEWIS & CO.,

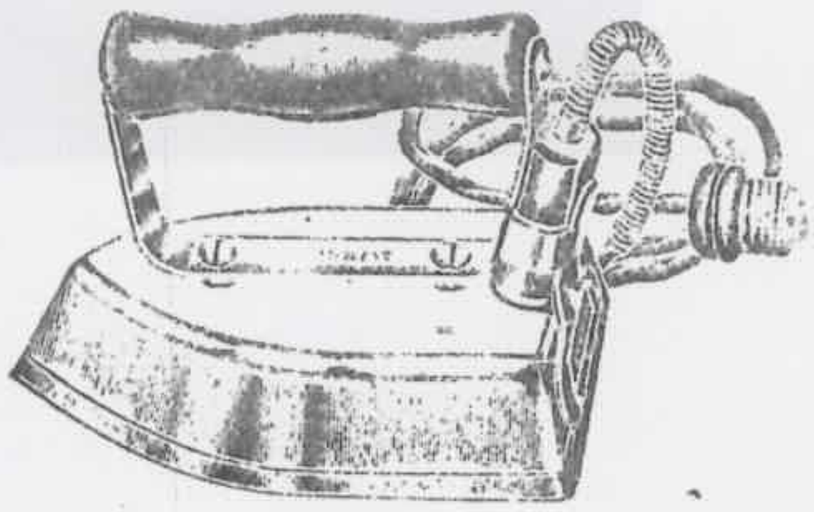
521 Commerce Street.

Philaa. phia 1867.

The "Princess" Electric Flat Iron, 17/6.

The most expensive iron will not give you better service.
Maximum service with minimum consumption of current.

Guaranteed for five years.



Improved Sad Iron (top), flyer produced by Latham, Lewis & Co., Philadelphia, 1867 and *The Princess Electric Flat Iron* (bottom), advertised in Lady Hackett (ed.), *The Australian Household Guide* (Perth: E.S. Wigg & Son, 1916).

The conservatism of housewives regarding domestic tools is evident in the remarkable similarities in shape between sad and electric irons. Manufacturers of the electric iron carefully copied the design of the sad iron, ensuring almost universal acceptance of this new tool with its new power source.

Plate 37



Home Again, oil painting by Frederick McCubbin, 1884. National Gallery of Victoria.

As with paintings of laundrywork, images of women ironing were not intended to be romantic. Yet this was a particularly appropriate scene to greet a returning husband. He would have been reassured by the first glimpse of his wife who, despite their home's poverty, continues to ensure by her own hard work that it is a site of careful management and industrious housewifery.

VI

Sewing Machines: The Great Civilizer

Introduction

The sewing machine was the most complex machine to enter the home in the nineteenth century, and one of the first domestic appliances to be mass produced. Although the sewing process — the stitching of two pieces of material together — was simple, the means needed to mechanize it were complex. Four major elements were required of a successful and practical sewing machine: a support for the cloth; a needle to carry the thread through it; a means of forming the stitch; a feeding mechanism to permit one stitch to follow another; tension controls to provide an even delivery of thread; and finally, a mechanism which would ensure the precise performance of each operation in its proper sequence.[1] But the sewing machine was more than just a mechanism for joining two pieces of cloth. As the *Singer Almanac of Australasia* proclaimed in 1911:

> Not only the British empire but all over the world ... Singer Sewing Machines are fulfilling their happy domestic mission. No household is complete without a Singer — the greatest time and labour saver of the age.[2]

Within a half century of its invention, the sewing machine had become the prerequisite of the well equipped Australian home. Its possession denoted 'respectability',[3] and an understanding of its use was seen as the right of every young woman (Plate 38).[4]

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1 Grace Rogers Cooper, *The Invention of the Sewing Machine* (Washington, D.C.: Smithsonian Institution, 1968), 19.

2 *The Singer Almanac of Australasia for 1911* (Sydney: Singer, 1911), 29.

3 An 1875 survey by the United States Mass Bureau of Statistics of Labor included the possession of a sewing machine as an indicator of membership of the 'more prosperous' working class. 400 families were interviewed of which 32.1% had sewing machines, a remarkably high proportion at this early date. See John F. McClymer, 'Late Nineteenth Century American Working Class Living Standards', *Journal of Interdisciplinary History*, XVII(2),(1986), 379-398 at 387; Daniel Horowitz, *The Morality of Spending: Attitudes Toward the Consumer Society in America, 1875-1940* (Baltimore: Johns Hopkins University Press, 1985), 19, 20.

4 For example, in the evidence given by Mrs Francis of Norwood School to the Public Service Commission, she stated, 'Enough time is not given now to sewing ... considering that the girls are being trained to make useful women and wives I think that too little time is given to sewing and that the standard of arithmetic or something else might be lowered for the girls ... more time should be given to sewing, domestic economy, cookery and things that will be useful to them in after life.' *South Australian Parliamentary Papers*, 1891, No 30A, 153.

As such, the sewing machine provides an excellent example of both the flexibility of the nineteenth century home, in its ability to absorb new machines, and the strength of the domestic ideal and its influence in determining which machines were accepted. This chapter focuses on the means used to market and promote sewing machines and the public response to them. Since these were among the most expensive of the new domestic technologies, this chapter also looks at the impact their purchase had upon household budgets, and the challenge they issued to Victorian ideals of thrift.

1. 'One of the Wonders of this Enterprising Age'[5]: The Mechanization of Sewing

The first sewing machines were developed to serve the textile industry. Yet, unlike other major innovations in this area — notably, the spinning jenny and the power loom — they arrived comparatively late. For although the industrial 'revolution' for textiles occurred in the eighteenth century, the first sewing machines did not appear until the 1840s. Even then, acceptance took another decade. The cause of this delay was the continuing availability of cheap labour for hand sewing. Mass production in the clothing trades had developed without mechanization and few manufacturers thought major capital investment in machinery worthwhile.[6] Thus whilst between 1830 and 1855 numerous patents were issued for sewing machines, none was a commercial success, although two paved the way for future developments.[7]

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5 From a description of the development of sewing machines in *Scientific American*, 8 October 1862 which went on to claim, 'No industrial invention can equal that which has been produced by it within the short space of sixteen years'. Quoted in Ross David Thomson, The Origin of Modern Industry in the United States: The Mechanization of Shoe and Sewing Machine Production (Unpublished PhD Dissertation, Yale University, 1976), 105. *Scientific American* took a particular interest in the sewing machine and ran numerous articles about its development and success, an interest that was undoubtedly inspired by one of their major advertisers, Singer, who was the first American company to spend a million dollars a year on advertising. William Ewers and H. W. Baylor, *Sincere's History of the Sewing Machine* (Phoenix: Sincere Press, 1970), 93.

6 Judith G. Coffin, Woman's Place and Women's Work in the Paris Clothing Trades, 1830-1914 (Unpublished PhD Dissertation, Yale University, 1985), 52, 53.

7 For a history of the sewing machine in Europe see *idem*; for the United States see Cooper, *op. cit* and Thomson, *op. cit.* The early success of the machine prompted considerable interest during the nineteenth century in its possible cause and amongst the first histories of the sewing

In 1829 a French artisan, Barthelemy Thimmonier, patented a *cousu-brodeuse* machine based on the action of a crochet hook. The following year he formed the Société Germain Petit and set up a workshop in Paris with eighty sewing machines to make uniforms for the military. This workshop was destroyed in 1831 by a crowd of angry young tailors and the business partnership folded. In 1845 Thimmonier again began to manufacture machines, one of which was described as being 'as stunning in its simplicity as in the grandeur of its results'.[8] A report on this workshop in the local newspaper produced an angry reply from an anonymous reader who pointed to the threat that machines posed to women workers:

> Of all the troubles which afflict humanity in our time, none is greater that the impossibility of a single woman to support herself at work ... can you imagine what will happen once five in six of these women has been thrown out of work by the sewing machine?[9]

At the same time, in the United States, Elias Howe was working on a machine with a grooved and curved eye pointed needle carried on a vibrating arm. However, where Thimmonier's invention had met with hostility, Howe's was greeted with indifference, and he spent three years trying unsuccessfully to raise money to manufacture his machine.

The initial failure of the sewing machine to attract commercial interest highlights the importance of social and cultural factors in determining the success or otherwise of an 'invention'. Simply doing the job was not enough; there had to be an environment in which the machine was seen to be not just interesting — and both Howe and Thimmonier attracted a great deal of interest in their machines — but also as essential to the successful completion of the task.

The history of the sewing machine thus provides an excellent example of the development model outlined by Trevor Pinch and Wiebe Bijker. By 1855 the basic structure of the sewing machine had been resolved: all machines had adopted a mechanism to allow for

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machine were John Scott, *Genius Rewarded, or, the Story of the Sewing Machine* (New York: John J. Caulon, 1880) and F.G. Bourne, 'American Sewing Machines' in Chauncey M. Depew, *One Hundred Years of American Commerce, 1795-1895*, II (New York: D.O. Haynes & Co., 1895), 525-539. Bourne was at the time managing director of Singer.

8 Coffin, *op. cit.*, 56.

9 *Ibid.*, 57.

continuous feeding and stitching and had abandoned the attempt to mimic the 'through-and through' movement of the hand in favour of stitches that went in and out of the same hole. 'Closure' was therefore reached in a remarkably short time and the essential characteristics of what constituted a sewing machine did not change until the twentieth century.[10] Indeed, although there would be numerous modifications to the models of the 1860s, the major manufacturers — Wheeler & Wilson and Singer — would continue producing machines based on their original designs for the next fifty years.[11]

The speed of this process points to the comparatively rapid 'take-up' of the sewing machine as compared with other technologies aimed at the domestic market — notably the cooking stove and the washing machine — where 'closure' could take fifty years or more. But this success had as much to do with social and cultural factors as with economic ones, as is evident if one looks at the response of the public to sewing machines displayed at two of London's international exhibitions.[12]

At the 1851 Great Exhibition, five sewing machines — all targeted at the manufacturing market — were shown. Although varying widely in appearance and mechanism — from a treadle machine less than a foot high with a needle on a circular spring, to one that was operated by an eccentric motion with the thread pushed backwards and forwards into the cloth from two small wheels immediately above[13] — all were principally concerned with speed and regularity. Thus, a French machine by Sechenal of Belleville was praised for the

10 Of course, a 'debate' continued for a further decade on the best type of stitch with Singer and Wheeler & Wilson focussing on lock stitch machines whilst Grover & Baker continued to produce the chain stitch machine. However, by 1870 the pre-eminence of the former was unquestioned and by the late 1870s Grover & Baker had gone out of business. Thomson, *op. cit.*, 299, 327.

11 A significant factor in the sewing machine market was the similarity of models over time, notwithstanding the continued claim by manufacturers to be releasing new machines. For example, the Wheeler & Wilson machine changed little in appearance between 1860 and 1880 despite the constant release of new models. Thus the machine in the Powerhouse Collection that was exhibited at the 1880 Centennial International Exhibition in Melbourne looks almost exactly the same as that illustrated in the companies 1860s catalogue (Plate 39). *Wheeler & Wilson's New Patent Silent-Working Lockstich Family Sewing Machines* (Melbourne: Wheeler & Wilson, [1868]).

12 For a detailed analysis of the early development of sewing machine manufactures and markets see Andrew B. Jack, 'The Channels of Distribution for an Innovation: The Sewing Machine Industry in America, 1860-1865', *Explorations in Entrepeneurial History,* IX (3),(1957), 113-141.

13 *The Illustrated Exhibitor*, No. 27, 6 December 1851, 506.

'firmness and regularity' of stitches produced at the rate of forty-five a minute. A British machine manufactured by C.T. Judkins of Manchester was described as capable of 500 stitches per minute, 'By means of it one female can make and deliver over to the ironer and presser, six pairs of nice pantaloons per day'. Similarly, an American machine by Morey of Boston, 'will accomplish the work of five seamstresses. It is easily wrought, is not liable to get out of repair, and is readily applicable to almost every variety of the plain stitch. In the large ready-made clothing establishments in the United States it is universally used.'[14]

In a commercial environment, time and labour-saving were the principal considerations. As an advertisement for Grover and Baker machines perceptively observed:

> Anyone who considers for just a moment the countless hands all over the earth whose only employment is needlework, or the enormous number and variety of sewing products in demand in even the most backward civilizations ... will recognize the significance of any process which facilitates sewing. In our day, time is money. The person who learns how to do in one second what others do in ten seconds has discovered a great secret. Minutes have conquered the ancient empire of dollars.[15]

However, when a decade later London again staged an international exhibition, sewing machines had found a new market and other considerations had come into play.[16] Over a hundred machines were displayed in lavish surroundings, many of them running. The machines were 'a great source of interest and attraction, especially to the ladies, who make many inquiries and carefully examine the quality of the sewing.'[17] Where the strength of the stitch and the speed of its execution were the only criteria against which machines had been assessed in 1851, now the juries focussed upon appearance, simplicity and cost.[18] Furthermore, the display tactics used by manufacturers specifically targeted women who, even at this early date, were identified as the principal domestic consumers. Thus

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14 *Exhibition of the Works of Industry of All Nations: Reports by the Jurors* (London: William Clowers & Sons, 1852), 1468.

15 Quoted in Coffin, *op. cit.*, 69.

16 In fact, there had been a small demonstration of American sewing machines for the domestic market at the Crystal Palace in 1853 — two each by Singer and Wheeler & Wilson. The Singer machines were pronounced noisy but the Wheeler & Wilson were a success and attracted 'the greatest number of admirers'. Robert Bruce Davies, *Peacefully Working to Conquer the World: Singer Sewing Machines in Foreign Markets, 1854-1920* (New York: Arno Press, 1976), 23.

17 *International Exhibition 1862: Reports by the Juries* (London: William Clowers & Sons, 1863), 6.

18 *Ibid.*, 8.

machines were displayed in luxurious versions of domestic environments with soft carpets, plush curtains and mirrors and pretty young women were employed to demonstrate them, undoubtedly providing an attraction for the husbands as well.[19]

The result was the beginning of what would become an enormous domestic demand for sewing machines. By 1915, Gibson could confidently claim that:

> A sewing machine is part of the furnishing of a well-ordered house, and we have become so familiar with its presence that we scarcely stop to think it strange that we should have introduced machinery into our homes.[20]

It is apparent that although the solution to the problem of mechanising sewing was quick to appear, entry to the domestic market could only be achieved when manufacturers had identified the factors that excited the interest of this market. Whilst speed was important, time and labour-saving alone were not sufficient. However, since the 'arrival' of the sewing machine coincided with changes in attitudes to clothing and dress, the necessary catalyst was soon found.

2. 'The Index of Her Mind'[21]: The Attainment of Fashionable Dress

The reasons behind this seemingly ready acceptance of such a mechanical device into the fiercly non-industrial nineteenth century home are complex. A major factor was simply the size of the task. For, at the time, much clothing worn by a family was produced in the home. Contemporary diaries and letters reveal that even comfortably off women like Georgiana McCrae made most of their family's clothes themselves. Writing of one day's

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19 Singer's management believed that demonstration was far more important than advertising and in the first decades of the company's history did not require its agents to take out any advertising at all. However, the company firmly believed the best promotion for the machine was the sight of a (preferably attractive) woman using it and paid its agents an extra fee if their wives would demonstrate the machines. See Jack, *op. cit.*, 132. See also Davies, *op. cit.*, 41.

20 Charles R. Gibson, *Wonders of Modern Manufacture: A Popular Account of the Marvels of Manufacturing* (London: Seeley, Service & Co., 1915), 114.

21 'The dress of a lady has been styled, and not improperly, the "index of her mind". She cannot therefore be too careful to make the index a true one, and one which they eye of the observer would peruse with pleasure.' 'An American Lady', *The Lady's Self Instructor in Millinery, Mantua Making and all Branches of Plain Sewing* (New York: Burgess, Stringer & Co, 1844), 20.

work in 1842, she reported, 'Cut out five pairs of trousers, and nearly completed one pair.'[22] Furthermore, as cheap printed cottons became more readily available,[23] and notions of 'fashion' reached a wider audience,[24] there was a substantial increase in the number and range of clothes worn.[25] As a Wheeler and Wilson publication proclaimed in 1859:

> The severe trials of the needlewoman are of modern date. The two plain, substantial suits prepared annually by our grandmothers, one for summer, one for winter wear, with little extras for holidays, have been superseded by suits as numerous and varied as the seasons of the year, the changes of weather, the phases of joy and sorrow, and the caprices of fancy and fashion.[26]

Where, in the eighteenth century, fashionable dress had been of concern only to the very rich, by the second half of the nineteenth century all but the indigent poor were anxious to be 'up-to-date'.

As is evident from the history of the washing machine, the existence of heavy workloads did not automatically cause consumers to embrace new technologies with enthusiasm. However, unlike the washing machine, the sewing machine did not just do the job faster, but also offered access to the world of 'fashion'. And whilst there was no practical need for

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22 Georgiana McCrae's Journal, 22 September 1842 in Hugh McCrae (ed.), *Georgiana's Journal: Melbourne, 1841-1865* (Sydney: Angus & Robertson, 1992), 71.

23 By the end of the eighteenth century, cheap printed cotton and linen fabric enabled working as well as middle-class women to wear coloured and patterned dresses. In 1785, Glasgow manufacturers petitioned against the tax on printed linen, arguing that, 'by adapting the coarse fabrics of Printed Linen to the Circumstances of Common People these goods have become almost universally a great part of the Cloathing of the middle and lower ranks'. Quoted in Anne Buck, 'The Dress of Domestic Servants in the Eighteenth Century' in *Strata of Society: Costume Society Conference, Norwich, 1973* (Norwich: Costume Society, 1973), 10-16 at 15.

24 By 'fashion' is meant dress in which the key feature is rapid and continual change of styles. For a discussion of the development of 'fashion' in Europe, see Elizabeth Wilson, *Adorned in Dreams: Fashion and Modernity* (Berkeley: University of California Press, 1985), 3ff. See also Margaret Maynard, 'Civilian Clothing and Fabric Supplies: The Development of Fashionable Dressing in Sydney, 1790-1830', *Textile History*, 21 (1),(1990), 87-100. Maynard defines fashion as 'the constantly changing attire of the financially or socially dominant within society'.

25 For a discussion of 'the democratization of clothing' in the United States, see Claudia B. Kidwell & Margaret C. Christman, *Suiting Everyone: The Democratization of Clothing in America* (Washington, D.C.: Smithsonian Institution Press, 1974). For Britain, see Beverley Lemire, 'Developing Consumerism and the Ready-Made Clothing Trade in Britain, 1750-1800', *Textile History*, 15 (1),(1984), 21-44; Beverley Lemire, ' "A Good Stock of Cloaths": The Changing Market for Cotton Clothing in Britain, 1750-1800', *Textile History*, 22 (2),(1991), 311-328. Despite the obvious importance of clothing, there is little scholarship on colonial Australian dress, an exception being Margaret Maynard, *Fashioned from Penury: Dress as Cultural Practice in Colonial Australia* (Melbourne: Cambridge University Press, 1994). For a discussion of the failure of historians to integrate studies of costume into their researches, see Katherine C. Grier, 'Review of Fred Davis, *Fashion, Culture and Identity*', *Winterthur Portfolio*, 28(1),(1994), 102-105.

26 *Armitage & Moseley's Annual Circular: Wheeler & Wilson's Celebrated Family Sewing Machines* (Albany: C. Van Benthuysen, 1859), 12.

men, or women, to wear fashionable dress — and, indeed, most had not done so in previous centuries — nonetheless by mid-century, middle and working-class people felt a great social and cultural need to be 'up-to-date'. This is evident in the rapid transfer of European fashions to colonial Australia where, despite the evident hardships and the distance from fashion centres, there was a surprising amount of commercial activity in the making and selling of clothes. Indeed, the importance of dress was magnified by the conditions created in a migrant — and convict — society where social status was both particularly important and especially fragile. The dress of both men and women was one of the few ways to assess fellow colonists, but was also the easiest way to misrepresent social origins. So anxious were colonists about this, that some argued clothing should be regulated. Samuel Marsden objected to 'gentlemen' convicts being permitted to wear their own clothes:

> There is not a Convict in the Colony, generally speaking, but who would have the assurance to rank himself by your side if he had a Coat as long, and of the Same Colour as that you wear.[27]

The fact that such concerns were often repeated in the course of the nineteenth century suggests that 'forgery of a superior social standing' through the wearing of fashionable clothes, was all too often a success.[28] Writing home to England after her husband has 'struck it rich', Molly Dibbs' major concern was to move upwards in class through her new clothes:

> Jack's share comes to nigh on £2,400 so when I go back to Melbourne I mean to set the fashions, which of course, I can, having been six months under-kitchen maid in Belgrave Square — as for our quality — at least, those that used to be before the diggings turned up — they know nothing about it.[29]

Although women were particularly subjected to fashion's whims, fashionable dress was no less important to men who, in domestic guides and etiquette books, were always being

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27 Margaret Maynard, 'Civilian Clothing', *op. cit.*, 97.

28 Beverley Lemire, 'Peddling Fashion: Salesmen, Pawnbrokers, Taylors, Thieves and the Second Hand Clothes Trade in England, c. 1700-1800', *Textile History*, 22 (1),(1991), 67-82 at 69.

29 Quoted in Kay Van Schie, *Fashions from Australia's Yesteryear* (Richmond: Greenhouse Publications, 1986), 2. The fine clothes of the newly rich in the goldrush years caused a reverse fashion where those who considered themselves to be the real gentry dressed down. Thus Mary Allport noted in her diary for 1853, 'I bought three dresses for myself, but two were only [cotton] prints which ladies must be contented to wear now, if they would be distinguished from the "slummocracy".' Quoted in Maynard, *Fashioned from Penury, op. cit.*, 98.

cautioned against taking too many liberties with their dress.[30] However, as retailers were quick to acknowledge, it was 'The Ladies, God bless 'em', who were the principal supporters of their trade:

> To woman's innate taste for adorning herself is traceable almost the whole prosperity of the trade .... may their taste for personal adornment never grow less, and their love of variety never abate, and may they always understand and appreciate the absolute necessity of being 'in the fashion' and of wearing only the very latest and most expensive millinery and clothes they can possibly procure ... may their taste in dress and their passion for shopping never grow less.[31]

The power of fashion in colonial Australia is demonstrated by the lengths to which colonial women went, both to find out about the latest fashions and to replicate them. Letters home were dotted with enquiries about the latest styles in millinery, the use of accessories, and the cut of gowns, and considerable anxiety was caused by the fear that it might not be possible to recreate them. Penelope Selby, writing to her sister from Port Fairy in 1847, complained that in attempting to 'furbish up' her silk gown, 'I am rather at a *non plus* for I saw in the paper that the sleeves are worn full .... Now mine are large with vengeance, I wish I had you or some fashionable to give me shape.'[32]

The desire for fashionable clothing was such that it inhibited the development of local clothing industries, even in millinery, where the cost of shipping hats and bonnets from Britain should have given a decided advantage to local manufacturers. Yet as the *Statistical Register* for 1866 concluded, 'the influence of fashion is so powerful that it is probable they will always continue to be imported in large quantities.'[33]

And it was not just a middle-class preoccupation. Whilst evidence is scarce, it certainly appears that the desire to be well (and fashionably) dressed had spread throughout New South Wales society well before the goldrush years. Jane Elliott's reasearch on colonial

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30 In 1844, 'An American Lady' gave a lengthy discourse on gentlemen's clothing. 'An American Lady', *op. cit.*, 21. Maynard argues that fashion had a particular importance for women because their role in Victorian society was largely defined by their appearance. However, Wilson reminds us that men were just as much subject to fashion's whims and in the course of the nineteenth century their clothing changed considerably more than women's as they abandoned colour and ornament in favour of cut and fit. See Maynard, *Fashioned from Penury, op. cit.*, 53; Wilson, *op. cit.*, 29.

31 *Australian Storekeeper's Journal*, 3(7),(1897), 222.

32 Quoted in Maynard, *Fashioned from Penury, op. cit.*, 110.

33 *Statistical Register of New South Wales for the Year 1866* (Sydney: Thomas Richards, 1867), 15.

store ledgers has revealed that working class convict men and women spent a significant portion of their incomes on clothing, and not just on utilitarian wear, but upon frilled shirts, waistcoats, printed muslins and fine shawls.[34] Gail Reekie's research on working women's clothing in the 1920s reveals the persistence of the link between 'respectability' and dress into the twentieth century. Respondents to the 1921 Board of Trade inquiry into the cost of living frequently referred to their concern to be 'decently dressed'; a 'neat' appearance helped a girl to get a job. This was more than just being clean and tidy, as Elizabeth Daw stated in justifying her desire for the latest fashions:

> A careless appearance makes a lot of difference (to a girl's position) you know. It is not to say that a girl is in the latest mode, but she wants to wear something which will not make her look about 11 years behind the times.[35]

Janet McCalman wrote in *Struggletown* of the importance working people placed on having at least one set of good clothes. In the 1920s, Phyllis Smith took her first pay packet to the Singer shop and made a downpayment on a sewing machine; Nellie Roberts spent four guineas on a hat, 'I was eighteen and I wore that hat everywhere — even to our Sunday School Picnic.'[36]

In colonial New South Wales, there were a number of sources of fashionable dress. At the top end of the scale were dressmakers and tailors, capable of executing individual garments, in 'a style of fashionable taste and neatness with the utmost punctuality'.[37] At the next level down were drapers — and by the last quarter of the century, department stores — which sold garments 'off the rack'. These could be reworked to fit, or sold as was, and

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34 See Jane Elliott, 'Was There A Convict Dandy? Convict Consumer Interests in Sydney, 1788-1815', *Australian Historical Studies*, 26(104),(1995), 373-392. For England, see Buck, *op. cit.*, 10-16 For a discussion of 'respectability' and dress see Jane Grove, 'Victorian Respectability and the Etiquette of Dress' in *Strata of Society, op. cit.*, 17-19.

35 Gail Reekie, 'Decently Dressed? Sexualised Consumerism and the Working Woman's Wardrobe, 1918-1923', in Raelene Frances and Bruce Scales (eds), *Women, Work and the Labour Movement in Australia and Aotearoa/New Zealand* (Sydney: Australian Society for the Study of Labour History, 1991), 42-56 at 52.

36 Janet McCalman, *Struggletown: Public and Private Life in Richmond, 1900-1965* (Melbourne: Melbourne University Press, 1985), 143, 144.

37 M. Hayes, milliner, advertising in the *Sydney Gazette*, 1803, quoted in Maynard, 'Civilian Clothing', *op. cit.*, 93.

offered an alternative to home production.[38] As the *Statistical Register of New South Wales* reported, the majority of ready-made clothing was imported:

> with the recent extraordinary development of machinery in the manufacture of clothing, it is rather surprising that so large a quantity of ready-made articles should be imported to this market, where there is a large unemployed female population.[39]

During the course of the century, the proportion of ready-made clothing purchased by Australian households steadily increased. Men's suits, shirts and trousers were soon joined by boys' clothing, womens' underwear and heavy outerwear such as cloaks and hoods. By 1879, Albert S. Bolles reported that in the American domestic market:

> the home-manufacture of men's garments has virtually ceased, and every one, from ploughman to railroad president, goes to the store for his goods, and can be suited, if he chooses, from the shelves of the store at once.[40]

Much the same could be said of local conditions. For the advent of the sewing machine had not only made these clothes cheaper, but also enabled better finish and fit. As a result, the small drapers shops that in the 1850s advertised their 'new and fashionable assortment' of clothing,[41] had by the 1880s grown to major department stores. In 1884, Anthony Hordern and Sons proudly proclaimed that seventeen of its thirty-five departments were given over to men's, women's and children's clothing and accessories, boasting 'no less than 1600 feet of counters, in front of which there are 700 chairs placed for the convenience of customers.'[42]

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38 In the course of the nineteenth century, tailoring, sizing and finishing of ready-made clothing improved greatly. The American Civil War in the 1860s — and the need to supply an unprecedented volume of standardized uniforms as fast as possible — brought significant change to the industry. Machine sewing was introduced, the production process subdivided and centralized and the measurements of thousands of recruits used to produce a standard set of sizes that was soon applied to menswear generally. See Philip Scranton, 'The Transition From Custom to Ready-To-Wear Clothing in Philadelphia, 1890-1930', *Textile History*, 25 (2),(1994), 243-273 at 245.

39 *Statistical Register of New South Wales for the Year 1866, op. cit.*, 10. For a history of the ready-made clothing industry see Thomson, *op. cit.*, 263 ff; Stanley Chapman, 'The Innovating Entrepeneurs in the British Ready-Made Clothing Industry', *Textile History*, 24 (1),(1993), 5-25.

40 Kidwell, *op. cit.*, 111.

41 From an advertisement for George Chisolm and Co., Drapers, Tailors and Outfitters in *Sands and Kenny's Commercial and General Sydney Directory, 1858-59* (Sydney: Sands and Kenny, 1858), Advertising Supplement, np.

42 *Anthony Hordern and Sons' Palace Emporium: Illustrated Catalogue* (Sydney: Anthony Hordern and Sons', 1884), 4.

The size of the ready-made clothing industry is revealed by colonial import statistics. Between 1860 and 1900, clothing imports accounted for between three and five per cent of total imports into New South Wales. At the beginning of this period, £243,207 worth of clothing was imported,[43] rising to £1,046,146 by 1889.[44] Ten years later, the local office for Singer sewing machines was claiming that over £900,000 worth of apparel from twenty-five different countries was being imported into New South Wales, a situation that, they argued, was directly attributable to the government's failure to teach girls to use sewing machines:

> We venture to say that if this question of national employment were taken up we should see our schools thronged, our sewing centres crowded, our people better dressed, less vagrancy in our streets, less numbers in our reformatories, gaols, lunatic asylums, and charitable institutions, because the best charity problem of the day would be solved in
>
> THE FINDING OF EMPLOYMENT FOR THOUSANDS[45]

Singer's histrionics aside, it is interesting to note that this increase in import levels was only slightly in advance of population growth, indicating that the enormous increase in the range of clothes required was largely absorbed by home manufacture.[46]

A third source of clothing, and one that was included in these import statistics, was the second-hand clothing market. Indeed, the size and sophistication of this market indicated the degree to which the desire for fashionable clothing had spread throughout society. It was more desirable to own a second-hand silk dress than a new cotton one.[47] In Australia, the price of clothing, and the cost of materials would have only added to the viability of second-hand clothes shops — shops with which Dickens had a particular fascination, describing them as 'those extensive groves of the illustrious dead'.[48] From convict days until well into the twentieth century, old clothes could be traded in as part payment for a

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43 *Statistical Register of New South Wales for the Year 1860* (Sydney: Thomas Richards, 1861), 173.

44 *Statistical Register of New South Wales for the Year 1889* (Sydney: Government Printer, 1890), 31.

45 *Notes on Commercial Value of Needlework to NSW* (Sydney: Singer, [1900]), 9, 10.

46 Between 1860 and 1900, the population of NSW increased by 357%, import levels of ready made clothing increased by 370%. Since there was almost no local ready-made clothing manufactured in NSW, it can be concluded that demand remained fairly constant throughout this period. Wray Vamplew (ed.), *Australians: Historical Statistics* (Sydney: Fairfax, Syme & Weldon Associates, 1987), 26.

47 See Beverley Lemire, 'Peddling Fashion', *op. cit.*, 67-70.

48 Wilson, *op. cit.*, 2.

new garment or pawned for ready money, and Sydney typically had no shortage of pawnshops.[49] In October 1859, Blanche Mitchell noted in her diary that their cook had just had all her clothes stolen, 'It is a dreadful loss to the old thing who has just worked all the clothes out of pawn and now has lost them forever.'[50] Although falling prices would increase the amount of new clothing bought by working and middle-class colonists, import figures suggest that the second-hand and slops trade remained strong throughout the nineteenth century.[51]

Given that fashionable and well-made clothing was becoming increasingly affordable, it should have been possible for the Australian housewife to abandon home production altogether, just as she was already giving up bread-making. Yet, this 'revolutionary change' did not occur. Although a significant proportion of clothing production — principally relating to men — was taken out of the home, that intended for herself, and for her children, remained firmly entrenched within its walls. And this was despite the fact that women's fashionable dress — aided by the existence of the sewing machine — was becoming more complex in its construction, and more time-consuming in its decorative finishes (Plate 39). As James Parton's *History of the Sewing Machine* (1868) acknowledged:

> Where is the woman who can say that her sewing is less a tax upon her time and strength than it was before the sewing machine came in? But this is not the machine's fault; it is the fault of human nature. As soon as lovely woman discovers that she can sew ten stitches in the time that one used to require, a fury seizes upon her to put ten times as many stitches in every garment as she formerly did.[52]

Instead of abandoning her traditional role as dressmaker for the family, the Australian housewife learnt an entirely new range of skills in cutting, tailoring and machine sewing in

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49 In 1858 there were sixteen, and in 1869, thirty-three pawnbrokers in the city, Newtown, Redfern and Woolloomooloo. *Sands and Kenny's, op. cit.*, 258; *Sands' Sydney Directory for 1869* (Sydney: John Sands, 1869), 448. For a discussion of pawn shops in William Street, Sydney, see Max Kelly, *Faces of the Street: William Street Sydney, 1916* (Sydney: DOAK Press, 1982), 23-25, 109, 110, 166, 167. For a history of pawnshops and pawning, see Paul Johnson, *Saving and Spending: The Working Class Economy in Britain 1870-1939* (Oxford: Clarendon Press, 1985), 165-188.

50 9 October 1859, Diary of Blanche Mitchell, Mitchell Library MS., State Library of New South Wales.

51 For one example of a British merchant noted for his second-hand clothing exports to Australia see Chapman, *op. cit.*, 6, 10, 16.

52 James Parton, *History of the Sewing Machine* (Boston: The Howe Machine Company, 1868), 19.

order to produce clothes as stylish and as up-to-date as those made in the factories. Thus, Eugenie McNeill recalled of her 1890s childhood in Sydney:

> Nearly everybody made some attempt at sewing and passed round newspaper patterns of leg-o'-mutton sleeves and bell skirts .... We had to listen to chatter about the craze for Scottish plaids or a new way of having a strip of canvas sewn round the hem of a skirt with ten rows of stitching.[53]

The 'newspapers' referred to belonged to the enormous range of women's periodical literature that came onto the market in Australia, the United States and Europe in the last quarter of the nineteenth century. Australians were noteworthy for the numbers of magazines to which they subscribed, both from Britain and, by the 1880s, locally produced.[54] All claimed to provide the best advice on women's fashions. As the first issue of *The Woman's World* announced in 1886:

> At present there is no organ solely devoted to the aims, hopes and aspirations of woman in our Southern hemisphere .... The latest English and Paris fashions, with descriptive Plates, will form a feature and be under the direction of a lady well qualified to give hints and suggestions on this important subject.[55]

The sheer number and variety of local magazines gives some indication of the size of the market and the obsessive interest women had in fashion. Between 1880 and 1900, appeared the *Australian Home Journal* (1888, 1894-present), *Australian Woman* (1894), *Australian Woman's Magazine* (1882-84), *The Block* (1896), *The Court* (1894-1900), *The Dawn* (1888-1905), *Happy Homes* (1891-92), *The Lady* (1889), *The Parthenon* (1889-1892), *Woman* (1892), *Woman's World* (1886-87) and *Worth's Australian Fashion Journal* (1898-1902).[56] From the 1870s, in addition to supplying 'fashion notes', these magazines also provided diagrams illustrating the pattern of the garment and the various pieces that would be needed to make it. The reader would have needed considerable skill to trace and enlarge

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53 Eugenie McNeill, *A Bunyip Close Behind Me: Recollections of the '90s* (Melbourne: Hawthorn Press, 1972), 59.

54 According to William Howitt, Australians bought one-third of all British book exports in 1854. The Athenaeum in Melbourne (a subscription library) had a reading room which subscribed to 200 newspapers and 150 periodicals. Contemporary commentators often referred to 'the general thirst for reading throughout Australia'. See Maya Tucker, The Emergence and Character of Women's Magazines in Australia, 1880-1914 (Unpublished PhD Dissertation, University of Melbourne, 1975), 16-20.

55 *Woman's World: Australian Monthly*, 1 (1),(May 1886), 1.

56 Drawn from the list of women's magazines published in Australia, 1850-1914, in Tucker, *op. cit.*, 427-432.

these pieces to the appropriate size and to sew them together, particularly since there were no instructions.[57]

However, simply by providing such information women's magazines encouraged the belief that 'fashionable' dress was within the reach of all. Previously, the only way that women could cut out a new dress was to unpick an old one, copy the pieces and cut these out in the new material. Since most women were taught at best 'plain sewing', the construction, tailoring and the other intricacies of producing 'fashionable' clothing were unknown, and 'fashion' the preserve of those who could afford *couture* clothing. By the 1890s, paper outlines were replaced by paper patterns which were stapled into each issue of journals like *Worth's Australian Fashion Journal* (published in Sydney) and *Madame Weigal's Journal of Fashion* (published in Melbourne). The *Australian Home Journal* offered a mail order service for a wide range of patterns for men, women and children. One country reader thanked the *Journal* for its free paper pattern service:

> Now, by the aid of your patterns, I can turn out a good skirt, blouse and baby's dress, and hope soon to be adept in the womanly art.[58]

The *New Idea* (1902-1911) featured a paper pattern service which sold patterns to subscribers for 9d. each, 'absolutely reliable, perfectly fitting, thoroughly stylish and up to date'.[59]

The persistence of home sewing well into the twentieth century has no practical explanation. Rather, it can be attributed to the strong link between sewing and femininity that formed part of the Victorian domestic ideal. Where laundry work was women's work but was in no way 'feminine', sewing defined the very essence of Victorian femininity. If the ideal image was of a family gathered around a 'cheerful hearth', that of the mother was of a woman bent over her needlework. As the authors of an 1855 instruction manual declared:

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57 See Margaret Walsh, 'The Democratization of Fashion: The Emergence of the Women's Dress Pattern Industry', *Journal of American History*, 66(2), (1979), 299-313.

58 Quoted in Tucker, *op. cit.*, 307.

59 *Ibid.*, 326.

> [it] brings daily blessings to every home, unnoticed, perhaps, because of its hourly silent application; for in a household each stitch is one for comfort to some person or other and without its ever watchful care, home would be a scene of discomfort indeed.[60]

The link between sewing and femininity was of ancient standing. In Greek mythology, the Fates were represented by three women: Clotho who spun out the thread of life on her spindle, Lachesis who measured that life, and Atropos who wielded the shears bringing life to an end.[61] But if, on the one hand, a woman sewing was an image of a woman protected, safe in the domestic sphere, it could also be one of the woman foresaken by her male protector, and forced to earn a living as best she could. One of the nineteenth century's most powerful poems, which 'echoed through the social classes',[62] was Thomas Hood's *Song of the Shirt:*

> With fingers weary and worn,
> With eyelids heavy and red,
> A woman sat, in unwomanly rags,
> Plying her needle and thread,
> Stitch! Stitch! Stitch!
> In poverty, hunger and dirt;
> And still with a voice of dolorous pitch -
> Would that its tone could reach to the rich!
> She sang this 'Song of the Shirt!'[63]

When first published in *Punch* in December 1843, circulation trebled. Set to music, the poem was quoted in nearly every English newspaper, reprinted, dramatized by Mark Lemon, and even printed on a handkerchief. It went on to inspire many paintings of women — and children — being forced to work long hours piecing together shirts and other ready-made clothing simply in order to survive.[64]

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60 Roszika Parker, *The Subversive Stitch: Embroidery and the Making of the Feminine* (London: The Women's Press, 1984), 154.

61 Coffin, *op. cit.*, 15 ff.

62 T.J. Edelstein, 'They Sang "The Song of the Shirt": The Visual Iconology of the Seamstress', *Victorian Studies*, 23(2), (1980), 183-210, at 184.

63 Quoted in Ruth Brandon, *Singer and the Sewing Machine: A Capitalist Romance* (New York: Barrie & Jenkins, 1977), 25.

64 Images of the exploited seamstress invariably featured the shirt maker which was the least profitable form of outwork in the clothing factory. As one of Mayhew's interviewees stated 'Shirtwork is the worst work, the very worst, that can be got. You cannot make more of those at 6s. a dozen than one a day, yielding 3s. a week. The trimmings would be about 3d. for the shirts, and the candle 6d. ... making 9d. to be deducted and so leaving 2s. 3d. per week clear.' Quoted in Sarah Levitt, 'Cheap Mass-Produced Men's Clothing in the Nineteenth and Early Twentieth Centuries', *Textile History*, 22 (2),(1991), 179-192 at 181. For a discussion of the iconology of the paid seamstress see Edelstein, *op. cit.*

In colonial Australia, images of domesticity frequently centred around a woman quietly sewing. It was the ideal image for the 'angel in the house', bringing together — and seemingly resolving — basic dichotomies: the woman is at work, yet peaceful; productive, yet removed from any suggestion of commerce or industry, a quiet observer of the household, yet contributing to it. Typical of this genre is an 1875 painting by Emma Minnie à Becket depicting a woman seated in a window sewing trimming onto a skirt, proprietorially observed by a man stretched out beside her (Plate 40).[65]

The introduction of a machine into this domestic idyll could be expected to destroy the image and result either in the removal of the machine — and sewing — to the factory or the construction of a new image of 'woman'. Indeed, the threat that the sewing machine posed to women was a major concern. As an American visitor to the 1851 Great Exhibition remarked, 'Sewing machines are becoming common. They will, I fear, take the needlework out of the hands of our fair ladies.'[66] Yet these fears were unfounded. Not only did sewing remain a feminine activity, but sewing at a machine became as much an image of domesticity — and of the domestic ideal — as had been sewing by hand. Thus a proud owner of a Willcox & Gibbs machine, wrote to the company in 1863:

> Your machine has certain moral and social advantages which make it peculiarly safe to introduce in the family circle. It is simple, swift, easily domesticated and very inoffensive. It is never obtrusive and noisy, overpowering domestic conversation, and has no violent or sullen fits, disturbing the family circle.[67]

And in an 1887 painting by Arthur Loureiro, his wife is seated at a table in front of her sewing machine quietly stitching by the late afternoon light (Plate 41). Frederick McCubbin's painting of his parents' kitchen is a scene of well ordered domesticity with a

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65 Roszika Parker argues that the self containment evidenced by such women was, in the nineteenth century, also interpreted as seductiveness. See Parker, *op. cit.*, 4, 5. For a discussion of this painting see Terence Lane & Jessie Serle, *Australians at Home: A Documentary History of Australian Domestic Interiors from 1788 to 1914* (Melbourne: Oxford University Press, 1990), 152. See also 'Drawing Room at Double Bay', photographed by William Stanley Jevons c. 1858; 'Drawing Room, Drummoyne' photographed by John Smith, c. 1860 discussed in *ibid.*, 104, 107, 108

66 W.A. Drew, *Glimpses and Gatherings During a Voyage and Visit to London and the Great Exhibition in the Summer of 1851* (Augusta: Homer & Manley, 1852), 355.

67 *Willcox & Gibbs Twisted Loop-Stitch Family Sewing Machine* (New York: Willcox & Gibbs, 1863), np.

kettle on the fire, laundry airing and to complete the scene, a sewing machine by the window (Plate 47).[68]

The history of the sewing machine therefore provides an example of 'reverse revolution'. Whilst it was embraced by manufacturers for its time and labour-saving potential, it was also embraced by the home, not for any reasons of efficiency but because it would preserve a traditional work practice whilst at the same time giving its owners access to the world of fashion. The success of particular models of the 'family' sewing machine was therefore not dependant so much on speed, as upon their ability to be in turn 'domesticated'. Singer's first machine, weighing fifty-five pounds, was no match for Wheeler & Wilson's, which at six and a half pounds was not only lighter but more 'ornamental'.[69]

3. 'A Pleasant Object to Look Upon in the Home'[70]: The Australian Market

It is useful to look at variation and adaptation in the design, mechanics and promotion of sewing machines to understand reasons why such new technologies were, or were not, 'taken up' by Australian consumers. This endeavour suggests that consumer appeal was highly significant in influencing the rate and direction of their domestic assimilation.

Sewing machines were particularly quick to arrive in Australia. In 1860 — five years after they had begun production — Wheeler & Wilson, then the most popular machine for the American family market, was producing only 25,102 machines a year yet at least some of these were finding their way to the Australian market.[71] In January 1862, Ruth Suttor wrote from Balmain to her sister:

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68 'The Seamstress's Reverie', by Arthur Loureiro, 1887, 'Kitchen at the Old King Street Bakery', by Frederick McCubbin, 1884, Lane & Serle, *op. cit.*, 184, 185, 213-4.

69 Davies, *op. cit.*, 6.

70 A description of the sewing machine in James Parton, *History of the Sewing Machine* (Boston: The Howe Machine Company, [1868]), np.

71 Cooper, *op. cit.*, 40. See also Robert Bruce Davies, The International Operations of the Singer Mfg. Co., 1854-1894 (Unpublished PhD Dissertation, University of Wisconsin, 1967), 14, 39, 40.

> Sewing machines are getting very general, they are a grand invention. I shall never be contented to 'stitch, stitch, stitch' again. I am paying for Lotty [her daughter] to learn, I think she will be 6 or 7 weeks before she will learn it, then, of course, time and practice will give the knack. They will, I foresee, become very general and knowing how to use them will be a great advantage. They require great attention. You certainly ought to get one. Some ladies have them who never will be able to do with them what I see under skilful hands they can be made to do.[72]

The Sydney merchant, Vennard and Stevens, first advertised sewing machines in 1860 and within twelve months was offering them to country customers through *The Bathurst Times* — claiming that Wheeler & Wilson's 'celebrated improved Family Sewing Machines' were now so reduced in price as to be 'within the reach of all classes'. Although the advertisement did not mention the price — suggesting that even at this 'greatly reduced' level it might deter potential customers — it was at about this time that Rachel Henning's neighbour bought a sewing machine in Bathurst for ten pounds. Rachel Henning wrote on 10 September 1861 that, when visiting Mrs Ranken, she 'showed us her sewing-machine, which they have just set up. Amy is wild to have one, and they are now on sale at Bathurst, but ten pounds is a good deal of money.'[73] If Amy, the wife of a clergyman and a woman with some independent means, thought they were too expensive then it can be concluded that sewing machines were far from being within the reach of all.

However, although cost hampered growth it did not stop it, and following the outbreak of the American Civil War and the consequent severe disruption of domestic sales, other major sewing machine manufacturers followed Wheeler & Wilson into export markets, and to Australia.[74] By 1864, Singer was advertising its lock-stitch machines in the *Illustrated Sydney News*, claiming that they were the 'Cheapest, most Durable, and BEST SEWING

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72 Letter from Ruth Suttor to her sister, January 1862 in Suttor Family of Bathust Papers, private collection. I am grateful to Carol Liston for making this material available to me. By August of that year Fanny Suttor was learning the use of the sewing machine, and planning to make Mary 'a nice tucked petticoat'. In June 1868, Mary's husband, Henry Gillham, reported that the Braidwood Literary Institute Committee was holding a lottery to raise funds for a new building. Amongst the prizes were a new buggy, a gold watch and chain, '1 or 2 sewing machines and many other good things'.

73 Rachel Henning to her sister, Etta, 10 September 1861 in David Adams (ed.), *The Letters of Rachel Henning* (Melbourne: Penguin Books, 1963), 76.

74 Competition was intense as each company vied for a share of the domestic market. Willcox & Gibbs, for example, claimed that 'it is notorious that scarcely a machine is put upon the market ... heavy, complicated, and unmechanical in its construction — but what is represented in the newspapers .... as a model of "combined simplicity, strength and beauty" — ergo, THE MACHINE FOR THE FAMILY!!' *Willcox & Gibbs, op. cit.*, np.

MACHINES IN THE WORLD'.[75] Two years later, Singer had branches or agencies, 'in nearly every city and town throughout the civilized world' (including Melbourne) and was exporting, on average, forty-seven per cent of its production.[76] The Howe Company's *History of the Sewing Machine* (1868), attributed the international success of American machines to the fact that 'foreigners can no more make a Yankee sewing machine that they can make a Yankee clock.'[77]

Manufacturers used two major strategies to encourage domestic consumers to buy their machines. First, they pointed to their 'simplicity' — 'children 12 years of age readily become proficient in its use'[78] — and second, to their time and money-saving potential. But, as was evident at the 1862 International Exhibition, it was this first strategy that was most significant, addressing as it did the major challenge faced by the sewing machine in the home, the fact that it was a machine. With over seventy individual parts, the sewing machine was the most complex of the new domestic technologies; undeniably mechanistic, it challenged the very notion of the home as a 'haven in a heartless world' and of women, as removed from the industrial world. The lengths to which manufacturers went to present their product as a 'natural' part of the home — in both design and promotion — indicates the importance of consumer response to new technologies. Sewing machines would not succeed in the home simply because they could sew two pieces of cloth together rapidly. Consumers had to be convinced that these machines would contribute to the home in ways far more significant than merely saving time and labour.

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75 *Illustrated Sydney News*, 16 September 1864, 16. See also *Illustrated Sydney News*, 16 July, 1864, 14.

76 Davies, International Operations, *op. cit.*, 75, 76.

77 Parton, *op. cit.*, np. The high level of exports of American sewing machines was of particular significance since, at the time, exports of manufactured goods were low. America did not become a multi-national exporter until the 1880s and 1890s. Davies, International Operations, *op. cit.*, 52, 53. See also Fred V. Carstensen, *American Enterprise in Foreign Markets: Studies of Singer and International Harvester in Imperial Russia* (Chapel Hill: University of North Carolina Press, 1984), 13-26; Mira Wilkins, *The Emergence of Multinational Enterprise: American Business Abroad from the Colonial Era to 1914* (Cambridge, Mass.: Harvard University Press, 1970).

78 *Bathurst Times*, 3 August 1861, 1.

This is evident in a rare surviving example of an Australian sales catalogue. By the 1860s, sewing machine manufacturers were producing illustrated catalogues of their products both to explain what they could achieve and to alleviate any doubts on the part of the consumer.[79] Well aware of the challenges posed by their machines, Wheeler & Wilson's catalogue was a lengthy dissertation on the value of the machine. In one article, 'Woman's Rights', the company argued that the machine was a necessary part of domestic life:

> To procure one of Wheeler & Wilson's Sewing Machines is to obtain the most effectual remedy known for the evils that have such a baneful effect on female life, and to become possessed of the means of shortening the hours of toil, increasing the amount of remuneration, gaining hours for relaxation and thus rendering life more healthy and enjoyable.[80]

To become such an 'organic' part of the home, the machine itself had to take on the domestic aesthetic. The early success of Wheeler & Wilson's machine is particularly significant since this was the least mechanistic in appearance of those available, and the one most self-conciously to adopt a domestic aesthetic.

Great lengths were taken to disguise the fact that it was a machine. The mechanism was kept to a minimum and much of it was 'boxed in'. The sewing arm and support for the feed were smaller than for other makes, and were at right angles to the user. What 'industrial surfaces' there were, were softened by decorative gold transfers of 'feminine' imagery — leaves, flowers and birds — and the whole encased in a french polished table or cabinet. So important was the appearance of the machine that it was the only reason for a variable price. There was no difference as far as the machine was concerned between a seven guinea model and a ten pound one; the only distinction was in the casing, for ten pounds the purchaser got silver plating and half cases to completely enclose the machine. Wheeler & Wilson thus succeeded because they were producing a machine that did not look like one.[81] The company had solved what Diane Douglas has identified as the essential dichotomy of the sewing machine, that it was promoted as being a necessary part

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79 Only one pre-1880 catalogue has been located for Australia although a number of American examples from the 1860s survive in the Warshaw Archives of Business Americana at the Smithsonian Institution and in the Hagley Museum and Library. For a discussion of Singer's use of the catalogue see Davies, International Markets, *op. cit.*, 12, 13.

80 *Wheeler & Wilson's Lockstitch Family Sewing Machines* (Melbourne: Wheeler & Wilson, [1870]), 11.

81 *Ibid.*, 9.

of any home — and a major contributor to its 'homeliness' — and yet as a machine it challenged the Victorian ideal of the home as haven.

The solution was to 'depoliticize' the machine by hiding the mechanism, and then to 'domesticate' it by encasing it in a piece of furniture.[82] Significantly, other manufacturers soon followed suit, Singer becoming particularly adept at 'hiding' the machine. It is surely no coincidence that the nineteenth century model which most commonly survives, passed by families from one generation to another, has a device that enables the entire mechanism to be folded away into a desk.[83]

Of course, the high cost of the machine remained an obstacle and this, too, Wheeler & Wilson addressed. Seemingly without noticing the inherent contradictions, in the same catalogue that praised the sewing machine as a necessary part of a happy home, 'Saving money with sewing machines', advised women to abandon housework in favour of paid employment. The article recommended that young couples should go without the very things that made home life comfortable — furniture, crockery and other necessities — in order to buy a sewing machine:

> Your wife may not be able to do much household work, but she can run a Sewing Machine with great ease. Employ a stout woman in the kitchen and let your wife do sewing. In a few months she will save enough to pay the domestic for her services, and pay for the Sewing Machine also.[84]

However, the stability of the ready-made clothing industry during the second half of the nineteenth century suggests that there was no significant drop in household expenditure on it, and consequently, no dramatic increase in savings due to ownership of a sewing machine.

Although exact sales of machines are unknown for this period, it is clear that the market grew slowly during the 1860s, picking up momentum in the 1870s and becoming highly

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82 Diane M. Douglas, 'The Machine in the Parlour: A Dialectical Analysis of the Sewing Machine', *Journal of American Culture*, 5 (1),(1982), 20-29 at 26.

83 See the discussion of the importance of sewing machines in Diane Bell, *Generations: Grandmothers, Mothers and Daughters* (Ringwood: McPhee Gribble/Penguin Books, 1987), 72-89.

84 Douglas, *op. cit.*, 13.

significant by the 1880s and 1890s.[85] The small size of the 1860s market is evidenced by the fact that sewing machines were not separately listed under imports in the *Statistical Register of NSW* until 1868. That year 408 cases, worth £3,091, were imported. The majority came from Victoria (fifty per cent), the United States (twenty-five per cent) and Britain (twenty-three per cent) although the British and Victorian machines could well have included some re-exported American models. By 1870, imports had risen to 872 cases, valued at £8,317, increasing tenfold over the next decade to reach 8,736 cases valued at £51,475 by 1880.[86] Again, these machines came from Victoria (forty-one per cent), Britain (thirty-five per cent), the United States (twenty-two per cent) and Germany (one per cent).[87] The fall in American and rise in British machines may be accounted for by the fact that the increasingly dominant Singer set up a manufacturing works in Glasgow and exported to the British colonies from there. Victoria saw a similar pattern of growth, although far more machines were imported into that colony. In 1872, £55,651 of machines were brought into the colony, a figure that increased fivefold over the next eight years, reaching £254,304 by 1880.[88]

The surviving records of a sewing machine repairer, Robert Miller of Ryde, supported by the evidence of the insolvency records, reveal no obvious bias in ownership either between middle-class and working households, or between the city and the bush. In 1874 and 1875, Miller cleaned and repaired machines for individuals and institutions — including the

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85 No reliable statistics survive for sales of sewing machines in Europe and America during the 1850s and 1860s. In 1859, an English trade publication estimated that there were 10,000 sewing machines in use in Great Britain and 100,000 in the United States, figures that would have represented both factory and domestic machines. Davis, International Operations, *op. cit.*, 73.

86 No information is provided in the statistics as to what constituted a case nor whether the values given were wholesale or retail. Assuming a retail price of about £10 in 1860, the figures for 1868 and subsequent years indicate one machine per case. On this basis, the unit cost is seen to vary widely. In 1868 it is £7 5s., rising to £10 6s. in 1870 and dropping to £5 9s. in 1880. The 1870 figure could be accounted for by a greater number of expensive models being imported but is still at odds with the price range quoted in catalogues such as Wheeler & Wilson's which offered five models ranging from a hand sewing machine priced at £5 10s. to a silver plated machine with half cases for £10. *Ibid.*, 9.

87 *Statistical Register of New South Wales, for the Year 1870* (Sydney: Government Printer, 1871), 59.

88 Melbourne Consul to Secretary of State, Annual Report, 1872, and Annual Report, 1880, United States Consular Despatches: Melbourne, T102, Volume V(1872), Volume VII (1880), National Archives of the United States of America, Washington, D.C.

Protestant Orphan School at Parramatta — from a wide range of suburbs.[89] The insolvents who owned machines when they went bankrupt included Michael Mulholland, an innkeeper from Kiama, who had one worth ten pounds. Charles Morley, an illiterate labourer from Newcastle had one, 'by which my wife earned money'; Malcolm Shaw, a bullock driver and timber getter had a sewing machine in his front room, as did the hawker, James Taylor, of Granville. Robert Chippett, who owned a substantial butchery in Oxford Street, had a sewing machine in the drawing room (Plate 42).[90]

Such growth in the market came about not because of any new improvements in the sewing machine mechanism. For, as has already been shown, although companies made great claims for 'newness', in reality there was little change in the machines. Thus, whilst in April 1882, Wheeler & Wilson advertised in the *Australian Women's Domestic Magazine* claiming—

> The new Wilson Oscillating Shuttle sewing machine is the best sewing machine in the world for family sewing and manufacturing. Entirely New in Principle, Detail and Design.[91]

— in fact, the machine was the same model as had been available in the colony since the 1860s. Clearly, therefore, it was not major developments in either the appearance of the machine or in its mechanism that produced the rapid increase in consumption of the 1870s and 1880s.

Instead, the cause was a high level of exposure through exhibition and public demonstrations, combined with a credit system that brought the purchase of such an expensive commodity within the reach of most Australian families. During this period,

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89 Miller cleaned and repaired machines and also had a business making machine stands for Gibbs, Shallard & Co. and it was the latter that sent him bankrupt. Although he had no shortage of business, the cost of materials and casting did not cover the expenses of manufacturing. Robert Miller, Insolvency Records 2/9537, File 12053 (1875), State Archives Office of New South Wales.

90 Michael Mulholland, Insolvency Records 2/9545, File 12158 (1874); Charles Morley, Insolvency Records 2/9550, File 12224 (1875); Malcolm Shaw, Insolvency Records 2/10,392, File 22507 (1887); John Shiel, Insolvency Records 2/10,392, File 22632 (1887); Robert Chippett, Insolvency Records 2/10,407, File 22811 (1887). State Archives Office of New South Wales.

91 *Australian Women's Domestic Magazine*, April 1882, Advertising Supplement, np.

sewing machines were heavily promoted at local, national and international exhibitions. Sydney's Royal Agricultural Society exhibition was typical:

> a large proportion of the space is devoted to the exhibition of sewing machines. These articles have become such established domestic institutions, that no wonder the competition in this particular department has been keen and the contributions numerous. Every machine introduced to the Australian colonies was represented ... and all were carefully watched and had their capabilities noted by the gentler portion of the visitors.[92]

Displays of working machinery were particularly important for products like sewing machines, with which most people were unfamiliar. An opportunity to see the machines running and to inspect their work was invaluable. As international exhibitions brought increasingly lavish displays of manufactured goods in halls laden with symbolism about industrial progress, so the opportunity to place sewing machines within this 'world of goods' as one of the 'wonders of the age' was not lost on manufacturers.

The American Commissioners to the 1873 International Exhibition in Vienna reported, 'probably no other kind of machinery was represented by so great a number of exhibitors ... as the sewing machine.'[93] Some fifty manufacturers participated, all vying with each other for the most elaborate and lavish of surroundings. In the Wheeler & Wilson pavilion, 'ceilings [were] draped with silk and velvet ... here the visitor trod on the softest velvet carpets, all the surroundings being in perfect keeping with the fine display of machines and samples.'[94] At the Melbourne Centennial Exhibition, Singer machines, 'were shown in operation daily on a raised floor handsomely carpeted and surrounded with decorations.'[95] Although the emphasis was on practical demonstration, the implication was that buying such a machine would bring a similar world of luxury, comfort and leisure within the grasp of the fortunate owner. So successful were these displays that the sewing machine came to represent not only the wonders of the age, but also the success of American manufacturing.

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92 *Illustrated Sydney News*, 29 September 1870, 50.

93 *Reports of the Commissioners of the United States to the International Exhibition Held at Vienna, 1873*, I (Washington, D.C.: Government Printing Office), 383.

94 George A. Fairfield, *Vienna, International Exhibition, 1873: Report on Sewing Machines* (Washington, D.C.: Government Printing Office, 1875), 22. See also Carstensen, *op. cit.*, 19; Robert Bruce Davies, ' "Peacefully Working To Conquer The World": The Singer Manufacturing Company in Foreign Markets', *Business History Review*, XLIII(3),(1969), 299-325.

95 *Report of the Royal Commission on the Melbourne Centennial Exhibition of 1888* (London: Eyre & Spotiswoode, 1889), 127.

As the United State consul reported enthusiastically on the 1880 Melbourne International Exhibition:

> In sewing machines America is *facile princeps* .... Sewing machines, and reapers and binders, it is obvious to all, could only have had [their] birth in a country where a deficient supply of labour imposed that necessity which is the 'mother of invention'. Sewing machines have been followed by pea shellers, cherry stoners, egg beaters ... and all kinds of automatic domestic helps .... By means of these labour saving machines ... in the retirement of the domestic circle, the wheels of life run more smoothly and with less friction, in that Kingdom where woman reigns supreme.[96]

Even local offices, like that of Singer in Sydney's Queen Victoria Building, employed an overwhelming level of luxury and of the exotic. The ground floor corner site was converted into a Moorish interior complete with highly decorated walls and ceilings, archways and columns, the whole executed in Wunderlich pressed metal.

If sewing machines were a 'symbolic' success, they were also a practical success. In the two years after the Sydney International Exhibition, imports of sewing machines into New South Wales doubled, reaching 14,742 pieces valued at £87,120.[97] By the late 1800s, Australians were amongst the highest consumers of Singer sewing machines in the world, third after Britain and Germany. Falling prices undoubtedly contributed to this success, but even at seven guineas rather than ten pounds, they were still expensive machines.[98]

The rapid increase in ownership, if pushed by aggressive advertising, was made possible by new systems of time payment. Until the last quarter of the century, Australian households neither had significant amounts of savings nor spent comparatively large sums on domestic goods.[99] Not only did families have to be persuaded that a sewing machine was an appropriate technology for the home; they also had to be convinced that it warranted a

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96 Melbourne Consul to Secretary of State, Letter Book, 16 May 1882, United States Consular Despatches: Melbourne, T102, Volume IV, National Archives of the United States of America, Washington, D.C.

97 *Statistical Register of NSW 1881, op. cit.*, 87.

98 This was due to the end of the sewing machine co-operative. A dramatic reduction in the price of machines did not occur until the 1890s when price wars amongst major mail order catalogue sellers saw them fall to as little as $US12.50 a machine. Boris Emmet & John E. Jeuck, *Catalogues and Counters: A History of Sears, Roebuck and Company* (Chicago: University of Chicago Press, 1950), 65-67.

99 For example, at the end of the nineteenth century a NSW resident consumed twenty per cent more sugar, eighty per cent more tea and twenty-five per cent more butter than a British resident. Little, *op. cit.*, 161.

substantial proportion of the household's disposable income. If fashionable dress was the catalyst for this change in attitude, hire purchase provided the means to achieve it.

Hire purchase — in the sense of a contract to hire with an option to purchase — was available in relation to furniture in England and America from the early 1800s.[100] It worked on the basis of an initial down payment followed by weekly repayments spread over one to five years. Only when the final payment was made, did ownership of the goods pass to the consumer.[101] Opinions differ as to which sewing machine manufacturer was the first to introduce it. Robert Bruce Davies believes it was Wheeler & Wilson, whilst in her history of Singer and the sewing machine, Ruth Brandon quotes an 1856 I.M. Singer & Co's *Gazette*, 'Why not rent a sewing machine to the housewife and apply the rental fee to the purchase price of the machine?'[102] Certainly, 'hire purchase' was well established in the United States by the 1860s, and may have arrived in New South Wales with the first sewing machines. As the Melbourne Consul reported in 1883, colonists were:

> not averse to contracting debts, they readily undertake them, but in the full intention of discharging them .... In a minor way, furniture, pianos and sewing machines are sold on credit.[103]

Although no statistics are available on the number of hire purchase agreements in colonial New South Wales, by the 1880s Singer claimed that eighty-five per cent of its business was based on instalment sales.[104] Indeed, business had grown so large by the turn of the century that a Hire Trader's Association was formed in New South Wales, whose Secretary argued in 1903 that his business was 'a necessary adjunct to our modern social life':

> The Hire Purchase System is decidedly of great convenience to the public, and we shall not have to look far to see the superiority of this system to other methods of purchase in a community made up so largely, as ours is, of families of moderate

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100 For the development of credit and hire purchase see S.K. Basu, *Economics of Hire Purchase Credit* (New York: Asia Publishing House, 1970), 5-7. Basu claims that the first hire purchase in England was in 1821 and the first sale of commodities on an instalment basis in the United States was a New York store which sold furniture in 1807 on the hire purchase system.

101 For a history of hire purchase in Britain see Johnson, *op. cit.*, 155-165; for the United States see Martha Olney, Advertising, Consumer Credit and the 'Consumer Durables Revolution' of the 1920s (Unpublshed PhD Dissertation, University of California, 1985), 123 ff.

102 Brandon, *op. cit.*, 117.

103 Melbourne Consul to Secretary of State, Letter Book, 6 August 1883, United States Consular Despatches: Melbourne, T102, Volume IV, National Archives of the United States of America, Washington, D.C.

104 Davies, International Operations, *op. cit.*, 235.

> means .... Under the hire system the public cannot possibly lose, if they will but keep their promises to pay.[105]

Significantly, he went on to link hire purchase with the domestic ideal, claiming it had 'brightened and comforted many a cheerless house', and it was this desire for a heightened domesticity that was the cause of households' preparedness to go into debt.

Regardless of which company first introduced hire purchase, Singer was by far the most successful at its management due to the agency system that the company had instituted almost from the first. Agents were employed directly by the company to sell their machines in a particular rural area, or part of a town or city. They were paid a weekly salary plus commission on new sales and percentage of subsequent payments. Canvassers visited each household within their district to collect the payment and both agent and canvasser reported daily to their branch office, which in turn reported weekly to central office, which reported monthly to New York.[106] Branch offices were located in an area with a minimum population of 5,000 and in Australia could be found throughout the colonies. An 1896 article in *Australian Storekeeper's Journal* suggested that Singer may have had as many as 4,000 men selling their sewing machines throughout Australia.[107] A 'wide awake canvasser in a neat Singer wagon, behind a good horse, with a Genuine Singer Sewing machine at his back', was the best advertisement possible for the company.[108]

A small deposit followed by weekly repayments — ' "Half a crown a week" is a favourite sum, and one which looks well in an advertisement'[109] — enabled diffusion of the sewing machine across social classes. But the difficulty of meeting regular payments caused at

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105 H. Sparks, *An Address on Hire Trading* (Sydney, 1903), np. For contemporary views in Australia on hire purchase see *Rydge's Business Journal*, 1 June 1929, 451 and 1 April 1930, 324-328.

106 For a detailed description of the agency system see Davies, *op. cit.*, 98; Carstensen, *op. cit.*, 58.

107 The company did not preclude women from its agency system, although generally women acted as demonstrators and teachers whilst their husbands were the salesmen. See Jack, *op. cit.*, 132.

108 Davies, *op. cit.*, 18

109 Advice given by the *Journal of Domestic Appliances and Sewing Machine Gazette*, quoted in Johnson, *op. cit.*, 155.

least one in four to give up the machine,[110] and many others to struggle for years to repay. Thus Minnie Taprell, a storekeeper in Pyrmont, still owed Singer £1 5s. 6d. after two years of repayments; John Shiel, a contractor from Murrumbateman, owed a sewing machine agent one pound for his machine.[111] Once declared bankrupt, both would have lost their machines and the money invested to date. As one critic said of the time payment system, unlike other domestic consumer goods, 'when a sewing machine is sold, the trouble and expense to the dealer has just begun.' (Plate 43)[112]

Conclusion

The history of the sewing machine in Australia points to the strong relationship between social and cultural values and the success — or otherwise — of a particular technology. Expensive, highly technical, and difficult to use — in the 1860s women wrote of spending six or seven weeks in classes 'learning the use of the sewing machine' — it nonetheless succeeded where other technologies had either failed, or been greeted with muted enthusiasm. It did so because it addressed a major area of women's work and identity, enabling the nineteenth century Australian household to continue domestic traditions established for centuries. More importantly, through the industries that grew up around it, notably the paper pattern industry, the sewing machine gave access to the world of fashion. And, more than ever before, fashion was a powerful force in Victorian society, and one that all but the indigent poor could achieve.

But it is also clear from the material considered in this chapter, that the sewing machine would not have entered the 'domestic circle' had it not itself absorbed the aesthetic of that circle. Thus Singer could unblushingly claim:

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110 In 1885, of the eighty-five per cent of their business based on time payment, twenty-five per cent of these sales were to customers who became insolvent, resulting in a repossession rate of almost twenty per cent.

111 Minnie Taprell, Insolvency Records 2/10,382, File 22504 (1887); John Shiel, Insolvency Records 2/10,392, File 22632 (1887), State Archives Office of New South Wales.

112 Fairfield, *op. cit.*, 35.

> All over the world, wherever homes and family life have been established, there you will always find the one first sign of civilization, the Singer Sewing Machine .... Six thousand Singer stores — located in every large town in the United States and in every country all over the world. You can go to the Singer store or have the Singer salesman come to you. Singer Machines are always sold direct from the maker to you.[113]

And it was not just the company that believed it. The customers and their families did as well. Above all, the sewing machine succeeded because it did not look like a machine, and the great 'civilizing' mission of which it formed a part, was not simply sewing, but tying the threads of the family — and of the nation — together (Plate 44). As one manufacturer claimed, the sewing machine *was* 'the angel in the house'.[114] If the machine was the guardian of the hearth, so the home had domesticated the machine.

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113 *The Singer Almanac, op. cit.*, 35.

114 *The Seams of the Leading Sewing Machines: Illustrated and Compared* (New York: Grover and Baker, 1862), 5.

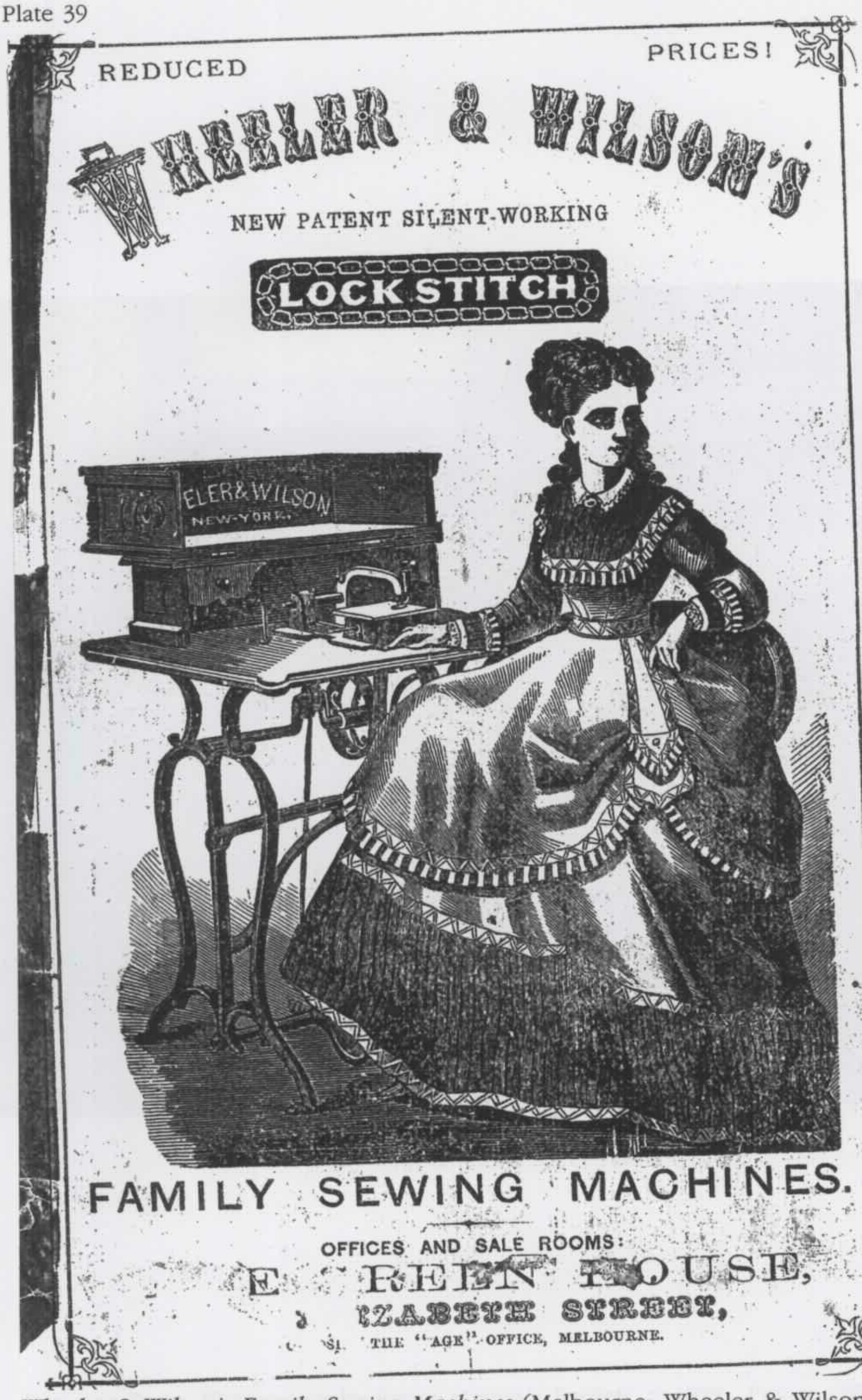
Plate 38



Singer Trade Card, Chicago World's Fair, 1893. Warshaw Collection of Business Americana, Smithsonian Institution.

By the last decades of the nineteenth century, Singer claimed to have 'branch offices everywhere' and argued that its machines were the 'first signs of civilization'. For the 1893 World's Fair, Singer issued an extensive series of trade cards showing the nations of the world using their machines. Significantly, in countries — such as the Caroline Islands — where Singer saw greater need for 'civilization' it was men rather than women who were depicted sewing with a Singer.

Plate 39



Wheeler & Wilson's Family Sewing Machines (Melbourne: Wheeler & Wilson, [1868])
Museum of Applied Arts and Sciences

In their promotional material, sewing machine manufacturers portrayed women dressed in gowns that could only be produced with the aid of their product. The pleating on this woman's skirt and bodice and elaborate trimming would not have been possible with hand sewing. The desire for these fashions meant that the time saved by the machine was more than expended creating such elaborations.

Plate 40



Drawing Room, Watercolour by Emma Minnie à Beckett, c. 1875. Private collection

In this image of domestic bliss, à Beckett has resolved the contradictions of the 'angel in the house'. Surrounded by the comforts and pleasures of middle-class life, this young woman is clearly removed from the world of work. Yet she is also industrious and, by quietly sewing under the gaze of her admirer, demonstrates her ability to take on the role of housekeeper as well as 'angel'.

Plate 41



Kitchen at the Old King Street Bakery, oil painting by Frederick McCubbin, 1884. Art Gallery of South Australia.

In McCubbin's painting of his parents' kitchen, the sophistication (and expense) of the sewing machine viewed through the open door, contrasts markedly with the makeshift colonial oven. Yet such constrasts were common in nineteenth century Australian homes where households might own sewing machines and pianos yet have no running water and only the most rudimentary cooking arrangements.

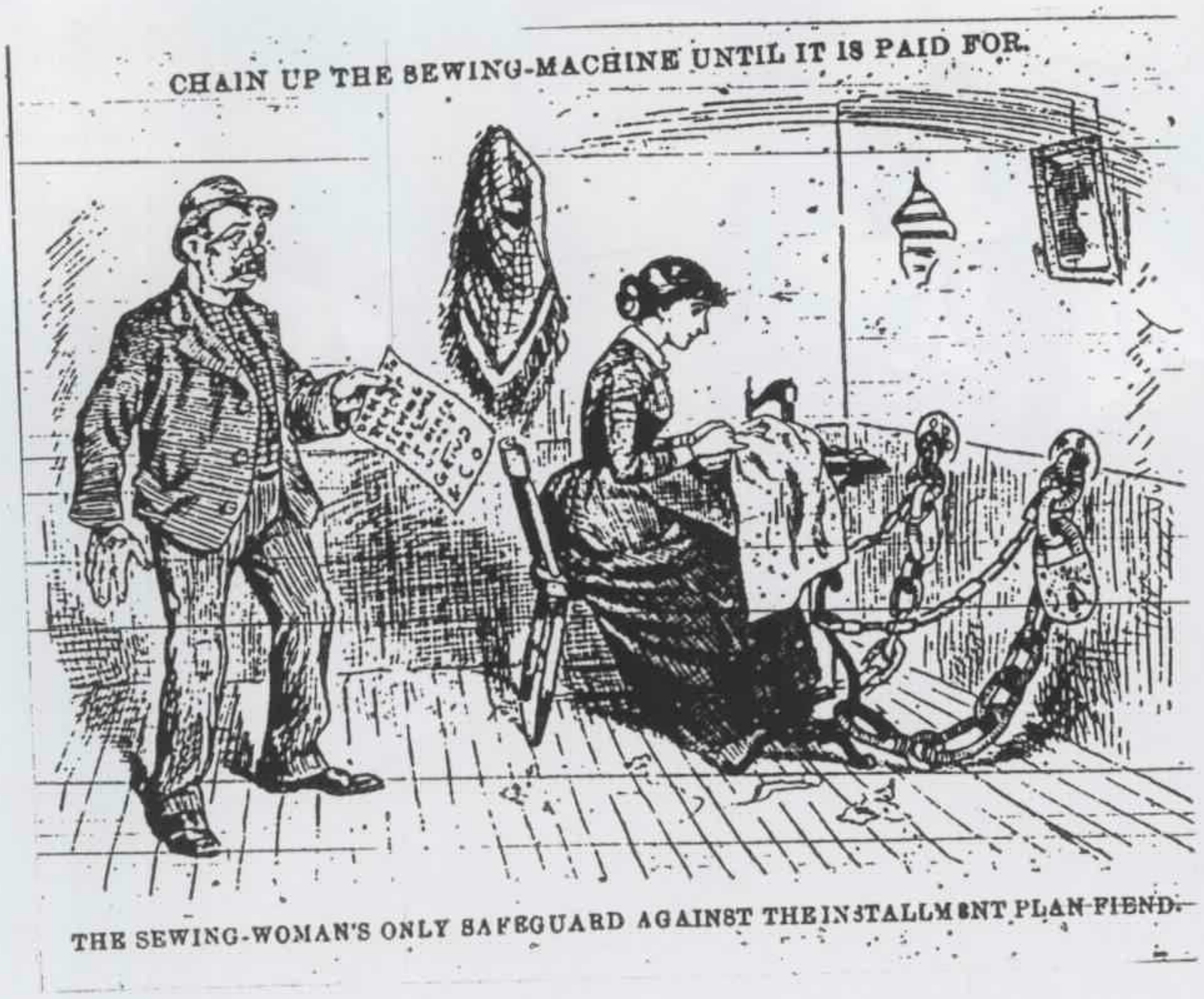
Plate 42



Unidentified family, Gulgong, photograph by Beaufoy Merlin, about 1872. Mitchell Library, State Library of New South Wales.

This photograph from the Gulgong goldfields, provides a good example of the wide class distribution of sewing machines. It is significant that the owner has set up her sewing machine on the front verandah for it to be photographed together with her children and simple cottage with its neat gravel path. Undoubtedly her most valuable — and valued possession — ownership of a sewing machine said much about her prosperity in the colony.

Plate 43



'Chain Up the Sewing Machine Until It Is Paid For', *The Bulletin*, 15 August 1885, 24. Mitchell Library, State Library of New South Wales.

The hardships of the seamstress were only increased by the opportunities time payment afforded for lenders to re-possess the goods, often with only a tiny fraction of the original purchase price left to pay. *The Bulletin's* solution to this injustice was to padlock the machine to keep it from the bailiff.

Plate 44



Singer: The Universal Sewing Machine (New York: Singer Mfg. Co., 1893). Warshaw Collection of Business Americana, Smithsonian Institution

On the cover of this catalogue, produced for the Chicago World's Fair, the Singer sewing machine is seen stitching the Americas together. As one of the world's first multi-national companies, Singer laid claim to being the 'great civilizer', uniting nations and bringing people together through the beneficial effects of its product.

VII

Towards the 20th Century Home: Decency, Respectability, Electricity and the Automobile

Introduction

In 1879, *Castner's Monthly and Rural Australian*, pictured for its readers the ideal of feminine domesticity as a neat parlour with a woman quietly sewing, a machine at the ready (Plate 45). However, the sewing machine was only one of a wide range of new technologies that had become available to Australians during the second half of the nineteenth century. A series of international and intercolonial exhibitions, changes in the marketing and promotion of goods, the development of department stores, and the emergence of a commercial journalism specifically targeted at women, all had brought a new range of goods and appliances within the grasp of the average Australian household. But, as the preceding chapters have shown, these 'new things' did not attain universal acceptance. Inflation, uncertainty of employment, and the harsh reality of supporting a family on average wages of between three and five pounds a week,[1] inevitably meant that, for all but the very rich, consumption was a matter of balancing one desirable good against another, of measuring need against desire, and of securing the greatest benefit for the whole family.

It is apparent that the burden of this decision-making fell on women, and that women made their choices according to a 'domestic ideal'.[2] Australian women of the middle and working classes did not, after all, aspire to a 'scientific cottage' full of labour-saving

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1 Australian domestic guide writers of the 1880s and 1890s pitched their works at the middle and 'respectable' working-classes. The anonymous author of *Men, and How to Manage Them* described her readers as 'that very large and respectable class of people who live in neat little cottage homes of six or eight rooms, and whose income reaches perhaps a modest five pounds a week, or thereabouts.' 'An Old Housekeeper', *Men and How to Manage Them* (Melbourne: A. H. Massina & Co., 1885), 40.

2 For a discussion of the role of women as consumers and the argument that rather than being a late nineteenth/twentieth century phenomenon it had been the case since at least the seventeenth century see Amanda Vickery, 'Women and the World of Goods: A Lancashire Consumer and Her Possessions, 1751-1781' in John Brewer and Roy Porter (eds), *Consumption and the World of Goods* (London: Routledge, 1993), 274-304. See also Elaine S. Abelson, *When Ladies Go A-Thieving: Middle-Class Shoplifters in the Victorian Department Store* (New York: Oxford University Press, 1989), 27ff. For Australia, see Gail Reekie, *Temptations: Sex, Selling and the Department Store* (Sydney: Allen and Unwin, 1993), 63.

appliances. It is not the case, as Beverley Kingston argues in *My Wife, My Daughter and Poor Mary Ann*, that Australian women were looking to replace their servants with machines,[3] since most did not have servants or, if they did, had servants who were so young and inexperienced as to be little more than an occasional help — and often a hindrance — to domestic work. Australian homes had certainly changed during the second half of the century — sewing machines stood in many a parlour, cast iron ranges had begun to replace the open fire, and comfort was increasingly valued more than 'gentility' — but these changes were far from revolutionary. Australian homes, like their British equivalents, clung to traditional practices and traditional furnishings. Christina Hardyment's argument that the Victorian home in England was the 'halfway' point on the move 'from a productive unit into a consuming maw, and from a nest and refuge to a "physical service station"' cannot be supported by surviving material evidence in Australia.[4] The fact that the Australian housewife stopped making bread and brewing beer did not mean that she had abandoned the domestic ideal. On the contrary, as contemporary paintings and stories reveal, the domestic ideal grew in strength during the century, and sewing and laundry work remained firmly entrenched in the home, despite the ready availability of alternatives in the factory.[5] Indeed, whilst the twentieth century has witnessed technological advances with the same revolutionary capacity as those in the nineteenth century, much of this ideal persists. The 1990s home, as evidenced in any Country Road advertisement, is conceived of as a haven much as its Victorian counterpart; and whilst we may cook in purpose-built kitchens with microwave ovens, the open fire and the cheery hearth retain great appeal (Plate 46).

The retention of things of value — and their conservative influence — is further evident in the material culture of the Australian home between the turn of the century and the end of

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3 Beverley Kingston, *My Wife, My Daughter, and Poor Mary Ann: Women and Work in Australia* (Melbourne: Nelson), , 197533-45.

4 Christina Hardyment, *From Mangle to Microwave: The Mechanization of Household Work* (Cambridge: Polity Press, 1988), 1, 2.

5 In *Seven Little Australians*, one of the most popular children's books published in the nineteenth century, Ethel Turner draws a sharp contrast between the discomfort of Misrule (managed by their young and rather incompetent stepmother) and the comfortable domesticity of Yarrahappini (where the house is run by their very capable grandmother). See Ethel Turner, *Seven Little Australian* (1894)(Montville: Walter McVitty Books, 1994).

the First World War, where the same ironies reflect attitudes towards saving and spending that made the Australian domestic ideal a continuing presence.

1. Decency and Necessity

By 1900, the pleasure Justice Bent had taken in 'his two good rooms' in 1810,[6] had spread to all but the indigent poor.[7] Where once clothing had been the chief 'measure of a man', now it was his home. Domestic furnishings and fittings had become more elaborate, and had taken on a special importance and status. Since most residents in the capital cities lived in rented accommodation, it was not so much the house itself but the way it was fitted out that indicated social status.[8]

A dramatic indicator of the degree of change implicit in the 'upward mobility' of the parlour is provided by the insolvency notices. John McDonald, a publican from Bathurst, went bankrupt in 1842 owing £1,392 6s.11d. All the furnishings he possessed consisted of two beds and bedding, a sofa, part of a set of tea china, a stone jug and eight chimney ornaments. Yet he and his wife both had what would have been considered extensive wardrobes; in his case, five shirts, three vests, three coats, three pairs of trousers, two hats,

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6 Ellis Bent to his mother, 4 March 1810, quoted in Terence Lane & Jessie Serle, *Australians at Home: A Documentary History of Australian Domestic Interiors from 1788 to 1914* (Melbourne: Oxford University Press, 1990), 5.

7 Indeed, lack of household furnishings had become a measure of poverty. In the evidence given to the 1860 Select Committee on the Condition of the Working Classes extensive descriptions were provided of the housing of the poor with the emphasis often being on the lack of furniture. Thus the rate collector, Joseph Clayton, stated 'I have gone into many places which have not had cooking utensils even, or furniture'. Describing the house of one family with five children, 'They had a bed, or at least a sort of bedstead ... made up of old clothes, a gridiron, and a saucepan and that was all I saw in the place.' *New South Wales Parliamentary Papers, Legislative Assembly: Report of the Select Committee on the Condition of the Working Classes of the Metropolis* (Sydney: Government Printer, 1860), 1263-1465 at 1296.

8 Studies in home ownership in nineteenth century Melbourne and Sydney reveal that while tenancy rates varied widely according to the suburb, the majority of housing was tenanted. In 1891 Sydney, seventy per cent of private residences were tenanted and in Melbourne, fifty-nine per cent. By 1911, tenanted private housing accounted for sixty-six per cent of housing in Sydney and sixty-three per cent in Melbourne. R.V. Jackson, 'Owner-Occupation of Houses in Sydney, 1871-1891', *Australian Economic History Review*, X (2), (1970), 138-154; A.E. Dingle and D.T. Merrett, 'Home Owners and Tenants in Melbourne, 1891-1911', *Australian Economic History Review*, XII (1),(1972), 21-35.

two pocket handkerchiefs, a neckerchief, silk cravat and pair of boots.[9] By contrast, Malcolm Shaw, a bullock driver, went bankrupt in 1887, owing £131 15s. A couch, table and cover, clock and sewing machine lent an air of 'respectability' to his cottage, whilst a wooden bedstead and bedding, cot and bedding, chest of drawers, washstand and set, and iron bedstead and bedding ensured his family were comfortably accommodated. A plain table, safe, crockery and cutlery and cooking utensils gave them both the means of preparing food and a place to eat it.[10]

Material possessions made the slab hut as respectable as the terrace house. Thus, in *Water Them Geraniums*, Henry Lawson gave a moving portrait of rural poverty, describing the Spicer's Hut as 'nearly as bare inside as it was out':

> [with] two mugs, cracked, and without handles, one with 'For a Good Boy' and the other with 'For a Good Girl' on it ... kept on the mantleshelf for ornament and for company. They were the only ornaments in the house, save a little wooden clock that hadn't gone for years.[11]

By contrast, Joe Wilson, a respectable working man, took pride in his family's modest possessions:

> There was the four-poster cedar bedstead that I bought before we were married and Mary was rather proud of .... There was a plain hardwood table ... four of those common black kitchen chairs — with apples painted on the hard board backs — that we used for the parlour; there was a cheap batten sofa ... (we were a little proud of the turned rails); and there was the camp-oven, and the three-legged pot ....[and] the little Wilcox & Gibb's sewing machine — my present to Mary when we were married .... there was a cheap little rocking-chair, and a looking-glass and some pictures .... mantleshelf ornaments and crockery and nick-nacks.[12]

This list is highly significant since it represents what had become the Victorian ideal: comfort with some attempt at 'refinement'. Whereas in the eighteenth century, a good bed and bedding had been an indicator of prosperity,[13] by 1900 previous luxuries — such as mirrors, pictures and ornaments — were now necessities, and a new desire for comfort — upholstered seating and chairs that enabled their occupants to be 'at ease' — had become

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9 John McDonald, Insolvency Records 2/8655, File 28 (1842), State Archives Office of New South Wales.

10 Malcolm Shaw, Insolvency Records 2/10,382, File 22508 (1887), State Archives Office of New South Wales.

11 Henry Lawson, 'Water Them Geraniums' in *Joe Wilson's Mates* (1888)(Ringwood: Penguin Books, 1988), 48-72 at 61.

12 *Ibid.*, 48, 49.

13 See Carol Shammas, 'The Domestic Environment in Early Modern England and America', *Journal of Social History*, 14(1), (1980), 3-24.

essential. Indeed, the home was now the basis of civilization and good housing critical to a nation's success. Thus the Committee reporting on the housing of Sydney's working classes in 1860 concluded that it was essential for standards to be raised:

> Not in a spirit of false philanthropy, but with an enlightened view of the ends of civilization, every danger should be anxiously eradicated which threatens the mental power and bodily vigor of the race .... Manly and contented citizens can hardly be expected to rise up from the arms of unhappy and unwomanly mothers. Attachment to the soil is of too delicate a growth to receive its nourishment from the desecrations of the family hearth.[14]

However, the changes that had occurred were in the type and amount of furniture — greater comfort and more use of ornament — rather than in the approach to furnishing. A world of new goods meant considerable increase in expenditure in setting up a home. For this reason, it was significant that, for Henry Lawson's hero, the only 'labour-saving device' was the sewing machine. Utility alone did not make an object necessary. The money that could have been spent on machines was, instead, spent on objects that enhanced the domestic ideal. As Mrs Wicken complained in *The Art of Living in Australia*:

> In almost every home through bright and sunny Australia we find a piano and a sewing machine and yet either of these costs far more than an ice chest, and perhaps as much to keep in repair as the ice to fill it.[15]

Whilst she could well be guilty of authorial licence in the number of homes thought to possess these objects, her comments nonetheless reflected a desire that was often expressed and sometimes fulfilled. Indeed, the *Illustrated Sydney News* went so far as to claim that Sydney had a far greater proportion of pianos per head of population than any European capital, a sure indicator of the 'true progress' of New South Wales.[16]

The degree to which a desire for comfort and respectability in household furnishings prevailed throughout Australian society is evident in insolvency records. In New South Wales, between 1842 and the 1890s, a detailed inventory of personal possessions — including furniture and clothing — was often included in insolvency documentation, as was a listing of expenditure during at least the previous six months, and sometimes over two or

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14 *Select Committee, op. cit.*, 1274.

15 Mrs Wicken, 'Australian Cookery Recipes, And Accessory Kitchen Information' in Philip E. Muskett, *The Art of Living in Australia* (London: Eyre and Spottiswoode, 1894), 251-405 at 256.

16 See *Illustrated Sydney News*, 1 January 1878, 6; *Illustrated Sydney News*, 13 November 1879, 6.

three years.[17] These inventories are particularly useful indicators of necessity, since by the time a family was brought to the brink of bankruptcy it had generally sold everything regarded as a luxury, and what furnishings remained were those that were considered essential.[18] Although it could be argued that bankrupts could not be expected to have expensive labour-saving machinery, it is apparent that many did not hesitate to spend large sums on furniture and drapery that could have been spent instead on a cooking stove or a washing machine.

Taken together, these sources reveal how important the household parlour had become in Australia. By the 1880s, it was essential, and its appurtenances of sofa, covered table, mirrors, clocks and ornaments were retained at all costs. It is perhaps not surprising that Havilland Le Mesurier, a lieutenant in the New South Wales artillery had a formal sitting room with piano, sofa and occasional tables; or a dining room with table, chairs, turkey carpet, books and sideboard.[19] However, it is much more surprising to find exactly the same parlour furnishings — albeit on a somewhat reduced scale — in the far more modest homes of farmers, hawkers, boarding house keepers, shop keepers and working men. Robert Mitchell, a railway porter from Chippendale, owed £52 14s. 3d. and had a 'front room' with table, sofa, five chairs and a clock.[20] Minnie Taprell, a storekeeper of Union Street Pyrmont, went bankrupt in 1887 owing £54, with household furniture valued at £25. Although forced to provide for herself by running a store in what was then a very poor neighbourhood,[21]

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17 Insolvency records are held by the State Archives Office of New South Wales and provide a substantial (and largely unused) data base. The sampling for this paper consisted of taking every fifth box of records for the years 1877-8, 1887-8 and 1897-8 amounting to some fifty records for each period. However, documentation within each case varied and as a general rule the later inventories were less detailed. A small sampling of records from 1842 was also consulted to provide a comparison with auction records from the same period. The use of this source is all the more significant since it provides a rare insight into the homes of working-class, as well as middle-class colonists.

18 This interpretation is supported by Linda Young's work on insolvency records in Adelaide in the 1850s. Linda Young, ' "Decency and Necessity": Material Life in South Australia, 1859' *Journal of Interdisciplinary History*, XXV(1), (1994), 65-84.

19 Married with two children, his income from the artillery was £320 a year but by 1887, thanks to 'extravagant living', he had run up debts of £409 18s. 2d. Of all the records studied, Le Mesurier was among the most affluent. Havilland Le Mesurier, Insolvency Records 2/10377, File 22445 (1887), State Archives Office of New South Wales.

20 Robert Mitchell, Insolvency Records 2/9530, File 11984 (1874), State Archives Office of New South Wales.

21 For a history of Pyrmont in the 1870s and 1880s see Shirley Fitzgerald and Hilary Golder, *Pyrmont & Ultimo Under Siege* (Sydney: Hale & Iremonger, 1994), 52-60.

her home had all the requirements of middle-class respectability. The front room had a centre table with cover, looking glass, ornaments, seven pictures around the walls, horsehair sofa, occasional tables and chairs. Formal curtains at the window and carpet on the floor lent an air of gentility, made complete by a Singer sewing machine in the corner.[22]

It is clear, therefore, that whatever a colonist's station in life, a formal, but comfortable, parlour was essential. The anonymous author of *The Australian Housewive's Manual* (1885) wrote for households like the Taprell's and the Mitchell's which:

> are obliged to do without servants of any kind, to look at both sides of a shilling before they spend it, and to make both ends meet upon a workman's wage, or a clerk's salary. I have planned this little manual for the use of persons whose entire incomes do not exceed three pounds per week, who cannot keep any servants at all, who are ... properly ambitious of living in decent comfort, and of keeping up a respectable appearance in the world.[23]

Included in the *Manual* were complete lists of household furnishings. The importance of a comfortable parlour was evident in the amount to be spent, even in a 'modest' household. The author estimated the cost of setting up the parlour as being £35 compared to £31 for the kitchen, and £21 10s. for the bedroom (plus £8 8s. 6d. for bedding).[24] Although the one could be said to be furnished 'generously', if not extravagantly,[25] the other had only the most basic equipment and no labour-saving devices at all. A 'Eureka' wringer could have been added to the iron tubs and washing board for 11s. or a portable cast iron range for £4 10s. — and both would have made a considerable difference to the work involved — but such goods were decidedly luxuries.[26] Likewise, when in 1895 Anthony Hordern's published complete lists of household furnishings, 'under four different scales of expenditure', the cost of the parlour far exceeded everything else. In each case at least five times as much was spent on the 'front room' as on the kitchen, and in the cheapest example only £2 8s.

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22 Minni Taprell, Insolvency Records 2/10,382, File 22504 (1887), State Archives Office of New South Wales.

23 'An Old Housekeeper', *Australian Housewive's Manual* (Melbourne: A. H. Massina & Co, 1885), vii.

24 *Ibid.*, 18, 26, 27.

25 The complete list was: twenty-six yards of brussels carpet, hearthrug, fender, set fireirons, six various chairs (not a set), table, two easy chairs, sofa, tablecover, pair lace curtains, pair damask or stuff curtains, window blind, outer green blind, rollers, cornice pole, parlour mat, chiffonier. She also adds that 'in ornamenting a room, to give it a look of home, there are certain standards which cannot mislead. Pictures, flowers, brackets, and books are the best ornaments you can have.' *Ibid.*, 20, 21.

26 Prices quoted are for a mid-range stove. *Anthony Hordern & Sons* (Sydney: Anthony Hordern & Sons, [1895]),426, 430.

was spent on the kitchen, compared to £11 7s. for the front room.[27] Of course, some social commentators railed against the ridiculous implications of such 'unnecessary frills'. In 1891, *The Dawn* complained that:

> In the working man's house it is the good wife's first aim to render one room useless by fitting it up with a drawing room suite, a piano and a multitude of ornaments. This room is never used .... The same money spent, if it must be spent, on books, or rest, or contrivances for lessening housework, would secure a real advance towards refinement.

However, as long as refinement was measured by the presence of the piano and the furniture suite, such change would never occur.

The major difference between the 1900 parlour and its 1850 equivalent was the new importance placed on comfort. Where to the mid-Victorian, the ideal parlour presented a formal stage to the world, the 'democratization' of the parlour meant that it was given over more to 'living' than 'performing'.[28] Thus 'An Old Housekeeper' advised her readers that if they wished to keep their husbands out of the tavern, they had to ensure that men would feel at ease in their own homes:

> A couch you must have, if your husband is ever to enjoy his ease in the room, because a man must be able to sprawl or he won't feel happy. But don't let it be so grand in appearance that lying down on it seems like a sacrilege.[29]

While the formality of the tea party might have been a thing of the past, the parlour remained the hallmark of civilization. Music was particularly important and the piano was the parlour's 'key object', the signifier of the family's respectability.[30] Indeed, the clearest evidence of the spread of the aspiration for culture across classes in nineteenth century

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27 The front room furnishings consisted of a 'Drawing Room Suite' — strongly recommended against in the domestic guides — an oval centre table, walnut overmantle, inlaid corner whatnot and two pictures. The kitchen had a table, dresser, safe, two chairs and a clothes horse. *Ibid.*, 303.

28 For a history of the parlour see Katherine C. Grier, *Culture & Comfort: People, Parlors, and Upholstery, 1850-1930* (Rochester: The Strong Museum, 1988). For a discussion of working-class parlours, see Angel Kwolek-Folland, 'The Elegant Dugout: Domesticity and Moveable Culture in the United States, 1870-1900', *American Studies*, 25(2),(1984), 21-37; Lizabeth A. Cohen, 'Embellishing a Life of Labour: An Interpretation of the Material Culture of American Working-Class Homes, 1885-1915', *Journal of American Culture*, 3 (1980), 753-775.

29 'An Old Housekeeper', *op. cit.*, 76. In addition to sofas, inventories increasingly list rocking chairs during this period, evidence of an important change in Victorian society and a rare example of a furniture form (the rocking chair) spreading upwards, unlike most furniture forms which percolated down. Kenneth Ames, *Death in the Dining Room and Other Tales of Victorian Culture* (Philadelphia: Temple University Press, 1992), 185-231.

30 Despite the acknowledged significance of the piano in Australia little research has been undertaken on its history. See Beverley Kingston, *The Oxford History of Australia Volume 3: 1860-1900, Glad, Confident Morning* (Melbourne: Oxford University Press, 1988), 231-233.

Australia is the lack of any clear class divisions in piano ownership.[31] Both William Lloyd, a once prosperous Sydney merchant, and Thomas Nott, a doctor from Woollahra, had pianos in their drawing rooms when they went bankrupt, each owing more than two thousand pounds.[32] But so did Louise Dawson, a boarding house keeper of Sydney, and Thomas Mitchell, a labourer of Leichhardt, who sold his clothes for three pounds to contribute to his debt of £44 yet kept the piano, claiming it belonged to his son.[33] Furthermore, households that had a piano rarely had any other 'modern' object. And the only new technology owned by a significant proportion of inventoried households in the 1880s was the sewing machine.[34]

None of the insolvency records surveyed had a washing machine or wringer; no expensive gadgets such as knife cleaners or apple peelers were mentioned (and anything costing more than a pound usually was) and only one house had a cooking stove. Where there were inventories of general stores, none had cooking stoves, washing machines or gadgets for sale.[35] The only inventory that reflected a desire for labour-saving devices on any scale was that of John Owen, a Wollongong saddler, whose home boasted a sewing machine, cooking stove, mangle, and the *avant garde* perambulator.[36] But such enthusiasm for the

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31 The same cross class spread is evident in piano ownership in the United States. A survey of 400 families in 1875 used ownership of a piano, sewing machine or carpeting as an indicator of prosperity amongst working people. See John F. McClymer, 'Late Nineteenth Century American Working-Class Living Standards', *Journal of Interdisciplinary History*, XVIII (2), (1986), 379-398.

32 Thomas Nott, Insolvency Records 2/10,387, File 22754 (1887); William Lloyd, Insolvency Records 2/9450, File 12098 (1875), State Archives Office of New South Wales.

33 Louise Dawson, Insolvency Records 2/10,382, File 12166 (1886); Thomas Mitchell, Insolvency Records 2/10,387, File 22566 (1887), State Archives Office of New South Wales.

34 Sewing machines were found in the households of: Minnie Taprell, *op. cit.*; George Everingham, Insolvency Records 2/10,402, File 22452 (1888); Malcolm Shaw, Insolvency Records 2/10,382, File 22508 (1887); James Taylor, Insolvency Records 2/10,392, File 22626 (1887); William Howes, Insolvency Records 2/10,402 File 2523 (1890); Robert Chippett, Insolvency Records 2/10,407 File 22811 (1887), State Archives Office of New South Wales.

35 For example the Saddlers and General Store of John and William Carrol at Dungog had kerosene lamps and American chairs but neither gadgets nor machinery. John Worrall Carroll and William Henry Carroll, Insolvency Records 2/9530, File 11979 (1874), State Archives Office of New South Wales. For ironmongery, the general store of Henry Frazer of Jerry's Plains had eight iron boilers, three saucepans, three enamel saucepans, a kettle, five rolling pins and two cricket bats. Henry Frazer, Insolvency Records 2/10,387, File 22560 (1887), State Archives Office of New South Wales.

36 John Owen, Insolvency Records 2/10,397 File 22681 (1888), State Archives Office of New South Wales.

new may well have been due to his business connections which, in all probability, enabled him to buy ironmongery wholesale.

The popularity of the piano points to the importance that families placed on entertainment rather than on new technologies or labour-saving devices. When a household had money to spend, it did not necessarily spend it on practical things. For a piano was not just something upon which the women of the household could play popular tunes. It represented culture and learning, offered entertainment and opportunities for men and women to perform together, and suggested that the household recognised the importance of 'higher things'.[37] On visiting his first middle-class parlour, 'Jonah' Jones was overwhelmed:

> It had an indescribable air of antiquity. Every piece of furniture was of a pattern unknown to him .... On the wall opposite was a large picture in oils .... It was a mere daub, but to his untrained eye it was like the pictures in the Art Gallery. Over the piano a framed certificate announced that Clara Grimes had passed the junior grade of Trinity College in 1890. And Jonah, who had an eye for business ... who moved in an atmosphere of profit and loss, suddenly felt ill at ease. His shop, his money, and his success must seem small things to these women who lived in the world of art.[38]

As a result of his visit, Jonah bought a piano and had his son taught to play it.

In the course of the nineteenth century, the Australian home — like its British and American equivalent — had moved from being a place of frugality to one of comfort, from an attitude of thrift and restraint to one, if not of extravagance, at least of being prepared to spend money and go into debt.[39] But if Australian householders were prepared to spend (or borrow) money it was not for the scientific wonders of the age that promised to transform the home, rather it was for those objects — the parlour suites, pianos and sewing machines — that guaranteed its survival.

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37 For a discussion of the cultural and social significance of the piano see Ames, *op. cit.*, 150-184.

38 Louis Stone, *Jonah* (Sydney: The Endeavour Press, 1933), 164.

39 For a discussion of changing attitudes to saving and spending in the United States, see Daniel Horowitz, 'Frugality or Comfort: Middle-Class Styles of Life in the Early Twentieth Century', *American Quarterly*, 37(2),(1985), 239-259; Daniel Horowitz, *The Morality of Spending: Attitudes toward the Consumer Society in America, 1875-1940* (Baltimore: Johns Hopkins University Press, 1985). For Great Britain, see Paul Johnson, *Saving and Spending: The Working Class Economy in Britain, 1870-1939* (Oxford: Clarendon Press, 1985).

3. 'The Power of the Purse'[40]: Saving and Spending

If the 1900 home had far more 'things' than its 1850 equivalent, this 'world of goods' had to be paid for. It was not just that women now bought goods and foodstuffs that they had once made — including bread, butter, preserves and processed meats. They were also tied to a cash economy through the provision of new services such as gas and water, and the desire for new things such as furniture suites, pianos and sewing machines. New opportunities to spend money brought particular pressures on women. Whilst on the one hand, department stores, women's magazines, and manufacturers were all encouraging women to spend, on the other, domestic economists preached careful spending and the avoidance of debt. And, as bankruptcy records reveal, it was not gambling debts or losses in land speculation that ruined most families, but rather bills from the baker, the butcher, the draper and the ironmonger. Frederick Esson, a typical example, was declared insolvent in 1887 with debts of £61 3s. 41/2d. These included £1 12s. for meat, £30 5s. 4 1/2d. for groceries and drapery (run up over the last three years), and £18 for horse feed and groceries.[41]

Kerreen Reiger argues that these factors made women dependant upon men in a way that they had not been when their own work contributed to the cash economy of the home.[42] It is clear that this dependence created considerable anxiety.[43] The anonymous author of *Men and How to Manage Them* placed particular emphasis on the wiles women could use to extract money from men whom she regarded as 'plastic, invertebrate, manageable animal, indocile and intractable undoubtedly ... but usually to be cajoled and circumvented

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40 Chapter heading in 'An Old Housekeeper', *Men and How To Manage Them, op. cit.*, 115.

41 Frederick Esson, Insolvency Records, 10/397, File 22691 (1887), Archives Office of New South Wales.

42 Kerreen Reiger, *The Disenchantment of the Home: Modernizing the Australian Family, 1880-1940* (Melbourne: Oxford University Press, 1985), 64-69.

43 For an example of the way husbands could exercise control over women through their control of 'the purse' see Penny Russell, ' "For Better and for Worse": Love, Power and Sexuality in Upper-Class Marriages in Melbourne, 1860-1880', *Australian Feminist Studies*, 7 & 8 (1988), 12-26.

and always ... to be reached through his stomach.'[44] Amongst her suggestions were directions for preparing a 'tasty' oyster supper:

> If he be exhilerated by your nice bright room, your good supper, and his own feeling of comfort, and looks like sitting up half an hour to smoke a pipe, don't be cross, but let him do so. Take up your knitting as quietly as if it were three in the afternoon, and let him chatter, or be silent, as he may choose. He will look at you, through the smoke, and see you patient, helpful, kind, careful of him, and his heart will expand to his household goddess, even if he give no immediate sign of it ...
>
> NB — It is not uncommon for a man at such a time as this to offer you his money for something you have been wishing for. In such a case always take it on the spot. Indeed, it is a good thing to have a pen and ink ready on the side table in case he wants to write a cheque.[45]

This anxiety of increasing dependance was heightened by the boom-bust nature of the colonial economy which meant that women had to manage with an uncertain income because of fluctuating employment and inflation.[46] Following a temporary respite after the 1890s depression, prices started to rise again in the immediate pre-war years and continued to do so until the 1930s.[47] The wife of a shipwright explained that they had been forced to run up debts of £95 8s. 6 1/2d because her husband's ill health and irregular work meant that 'sometimes he would work a week in a month, sometimes a fortnight ... and he has had to keep me and two children.'[48] The result was a constant demand by creditors for payment. As Blanche Mitchell, the daughter of the surveyor general, wrote after his death:

> ... bill came from Foss, we are pursued for money everywhere. Not a penny of money anywhere and bills all around us. Obliged to keep up appearances but oh what poverty have we to strive [against].[49]

'An Old Housekeeper's' solution to the problem of money management was that women should seize control of the household purse:

> There are many men who are careful and accurate in business, honest as daylight, and perfectly well meaning, who cannot carry a pound intact from the Town Hall to the Public Library. They are bound to lend it, spend it, or give it away.[50]

All domestic writers recommended thrift and, as Reiger has shown, the nineteenth century Australian household was bombarded with 'thrift' talks, while savings banks and friendly

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44 'An Old Housekeeper', *Men and How To Manage Them, op. cit.*, 17.

45 *Ibid.*, 104, 105.

46 For a discussion of the considerable fluctuation that was characteristic of industrial employment in Sydney see Shirley Fisher, 'The Family and the Sydney Economy', *Australia 1888*, Bulletin No. 9 (1982), 83-87.

47 See Peter Shergold, 'Prices and Consumption' in Wray Vamplew (ed.), *Australian Historical Statistics* (Sydney: Fairfax, Syme & Weldon, 1989), 212-216.

48 Henry Dent, Insolvency Records 2/9545, File 12156 (1874), State Archives Office of New South Wales.

49 21 September 1858, Blanche Mitchell's Diary, Mitchell Library MS.

50 'An Old Housekeeper', *Men and How to Manage Them, op. cit.*, 117.

societies argued for 'thrifty' saving.[51] Recipes for scraps and leftovers could be found in every cookbook, 'There should literally be no waste at all in a properly managed house.'[52] Women were advised to write down everything they spent and keep weekly accounts in a ledger that would enable them to see where the money was going and budget accordingly.[53] Above all, they were warned against going into debt, 'Never under any pretext whatever go beyond weekly bills.'[54]

However, as Australians approached the dawn of the new century, these self-proclaimed domestic authorities also encouraged consumption. Mrs Wicken drew particular attention to the difference between 'economy' and 'parsimony'. It was a woman's duty to spend wisely:

> True economy does not mean buying the cheapest things for in the end they are often the dearest, but it is rather buying good things with discretion and knowing the right quantity to use. Stinginess, or cheese paring as it is commonly called, is a different thing altogether. Under that system, everybody is uncomfortable, whether they are guests, or children, or servants, but with true economy peace and plenty will prevail, order and contentment follow.[55]

It was no coincidence that Mrs Wicken was also noted for the number of corporations with which she was involved — including the Melbourne Gas Company, the Fish Marketing Authority and the Greengrocer's Association. It was therefore important that she encourage her readers to spend, albeit wisely.[56] And it is apparent from the expansion of retail trade in the last decades of the nineteenth century that she was successful. In the 1880s alone, the number of retailers in Sydney increased by seventy-eight per cent, and retail sales grew from £1.5 million in 1892 to £2 million in 1900 and over £5 million by

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51 Reiger, *op. cit.*, 64-66.

52 'An Old Housekeeper', *Australian Housewive's Manual, op. cit.*, 70.

53 Mrs Harriet Wicken, *The Australian Home: A Handbook of Domestic Economy* (Sydney: Edwards, Dunlop & Ball, 1891), 61. For an example of just such a ledger, see Annie Butterworth, *Manual of Household Work and Management* (London: Hutchinson & Co., 1902), 32. Sufficient numbers of these ledgers survive in family papers and public collections to indicate that this was a common practice, at least amongst middle-class women. For example, Ethel Turner kept detailed records of her income and expenditure throughout her life. Ethel Turner papers, private collection.

54 Mrs Harriet Wicken, *The Kingswood Cookery Book* (1888)(Melbourne: Whitcombe and Tombs, 1918), 161.

55 Wicken, *Australian Home, op. cit.*, 8.

56 Mrs Wicken's books were also notable for the number of advertisements they contained for new food products and appliances. *The Australian Home*, for example, contained advertisements for Baking Powder, Curry Powder, Lime Juice Cordial, Paling & Co. pianos and gas stoves. *Ibid.*

1914. Barbara Little has argued that this growth in trade reflected an enthusiasm for consumption by middle and working-class families alike. [57] As one worker put it, 'If you were keeping up with the Joneses, you had a piano and had your front door open so that people could hear.'[58]

Paul Johnson points out that in England this 'instinct to possess' worked against savings in the bank and although both savings banks and building societies were available, deposits were not high. [59] Much the same could be said of Australians and if they were not saving through bank deposits, neither were they saving through home ownership. At the 1891 census, thirty-one per cent of occupied houses in Sydney were owner-occupied and sixty-six per cent tenanted, and these proportions did not change markedly until after the First World War.[60] These conditions favoured consumption, for if householders could not afford to build or buy a home, they could create and sustain respectability through certain standards in furniture and clothing. Furthermore, spending money on such portable goods acted as 'thrift in reverse' since they had a re-sale value. If times became hard, householders could always sell or pawn their possessions and, as pawnshops were concentrated in areas of working-class housing and open six days a week, they were more convenient than banks and, unlike both banks and post offices, offered 'cash on demand'.[61]

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57 Barbara Florence Little, Retail Trade and Distribution in Sydney, 1880-1914 (Unpublished PhD Dissertation, University of Sydney, 1979), 26, 53.

58 Johnson, *op. cit.*, 179, 180, 228.

59 For a history of banking in Australia see S.J. Butlin, *The Australian Monetary System, 1851-1914* (Sydney: Ambassador Press, 1986). Paul Johnson, in his study of working-class savings in Britain, points out that although there was clearly considerable demand by working-class people for savings banks, the low value of most accounts, together with the small average number of transactions and high annual rate of account closure, indicated that they were used primarily for short-run protection of savings rather than long term accumulation, ie. saving to spend rather than for thrift. Johnson, *op. cit.*, 124. What savings were made by Australian households were usually in the form of insurance. Insurance policies were always advocated in the domestic guides which featured advertisements by insurance companies alongside those for new appliances and foodstuffs. See for example, 'An Old Housekeeper', *Australian Housewives Manual, op. cit.*, 8-11

60 Jackson, *op. cit.*, 138-154. Jackson points out that owner occupation of houses dropped as suburbs became more established and that cheaper land and construction costs meant that proportionally more people owned their homes in rural areas. Even after 1918 change was slow. Although home ownership rose after the war to reach 41 per cent owner-occupation by 1921, this proportion then fell to 40.5 per cent in 1933 and 39.7 per cent in 1947. Dramatic change did not come until the 1950s and by 1961, 71 per cent of Sydney's private dwelling were owner occupied. See also, Peter Spearritt, *Sydney Since the Twenties* (Sydney: Hale and Iremonger, 1978), 105.

61 See Johnson, *op. cit.*, 166-188.

The success of pawnshops is evidenced by their growth; between 1873 and 1889, their number in the city of Sydney and its immediate environs (Balmain, Glebe, Newtown and Redfern) almost doubled, from thirty-three to fifty-four.[62]

The pawnshop was an important consideration in purchasing because growth in consumption did not reflect a growth in disposable income. Indeed, Barbara Little has estimated that after paying for rent and food, working families had only 1.59 per cent of their income left for 'other household requisites'.[63] Although the very fact that they were facing bankruptcy makes the budget details provided by insolvents and their families a-typical, nonetheless it is significant that these working men complained that their wages could not meet their households' necessary expenses. Benjamin Smith, a labourer of Waterloo, reported that his wages of seven shillings a day (£2 2s. a week) could not support his family.[64] David Goodman, an innkeeper of Moore Park, claimed that his weekly takings of £3 10s. could not keep his wife and nine children.[65] John Booth, a labourer of Tenterfield, stated that with earnings of seven to eight shillings a day, 'I am quite unable to pay my debts. It takes all my wages to support myself and family [wife and five children].'[66]

However, such families could — and did — buy clothing, furniture and expensive items like pianos and sewing machines. They bought them on credit, and during the last quarter of the nineteenth century more and more families took advantage of a new credit form, hire purchase. Traditionally, middle and working-class families had run up bills at butchers, grocers, bakers, drapers and ironmongers, paying them (or not paying them) at monthly or quarterly intervals.[67] Hire purchase, which was available in Australia from the 1860s, enabled people without savings to buy comparatively expensive household goods. Where a

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62 *Sands' Sydney Directory for 1873* (Sydney: John Sands, 1873), 562; *Sands's Sydney & Suburban Directory for 1889* (Sydney: John Sands, 1889), 1014, 1015.

63 Little, *op. cit.*, 43.

64 Benjamin Smith, Insolvency Records 2/10,382, File 22507 (1887), State Archives Office of New South Wales.

65 David Goodman, Insolvency Records 2/10,387, File 22565 (1888), State Archives Office of New South Wales.

66 John Booth, Insolvency Records 10,397, File 22689 (1887), State Archives Office of New South Wales.

67 For a discussion of store credit see Susan Strasser, *Satisfaction Guaranteed: The Making of the American Mass Market* (New York: Pantheon Books, 1989), 68-73.

family might not have ten pounds for a sewing machine, it could find one pound deposit and weekly repayments of five shillings. Although no figures are available for hire purchase trading in nineteenth century Australia, the success of the system can be judged by comparable statistics overseas. In 1891 it was estimated that there were about one million hire purchase agreements in existence in Britain; by 1921 this figure had risen to sixteen million, with four million being added each year.[68] In the United States, 80,000 retailers sold their goods on time payment by 1920, a figure that (thanks largely to the automobile) quadrupled by the end of the decade, accounting for six billion dollars of sales.[69] In Australia, by the time of a Commonwealth Inquiry into hire purchase in 1940, it was described as 'a definite part of the credit system of this country' and that year accounted for over twenty-three million pounds of purchases.[70] One contemporary American observer believed that its success was attributable to modern methods of advertising and high pressure salesmanship, making consumers feel 'life will be a failure unless he or she uses this soap of shaving cream, drives this automobile, owns this radio.'[71]

It is clear, therefore, that in the course of the nineteenth century Australian households changed their attitudes to the home. What had once been luxuries had now become necessities, and people were prepared to spend large sums of money on major household items — going into debt with long term payment commitments in order to have what they regarded as essential. But amongst this new catalogue of goods there was little that was either modern or scientific. Householders looked to the revolution in industry to supply them with elaborately carved parlour suites with matching upholstery, clocks for the mantlepiece and carpets for the floors. They did not want the *fin de siècle* machines that were also part of this 'revolution'. Contrary to what Beverley Kingston has argued for

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68 It was estimated that eighty per cent of cars, ninety per cent of sewing machines, seventy-five per cent of furniture and ninety-five per cent of pianos and wireless sets were bought on hire purchase. Johnson, *op. cit.*, 157.

69 Martha Olney, Advertising, Consumer Credit and the 'Consumer Durables Revolution' of the 1920s (Unpublished PhD Dissertation, University of California, 1985), 151, 152.

70 Hire purchase accounted for 21.25 per cent of domestic appliance purchases, 35.78 per cent of refrigerators, 7.35 per cent of furniture and 44.55 per cent of pianos. *Board of Inquiry Appointed to Inquire into Hire Purchase and Cash Order Systems* (Sydney: Commonwealth of Australia, 1941), 8, 11.

71 Jacob Billikopf, *Survey Graphic*, 1925 quoted in Plummer, *op. cit.*, 8.

Australia, and Christine Hardyment for Britain, the 'take up' of new technologies was therefore far from being universal. As a result, the most *avant garde* often sat next to hand-me-downs that were decidedly old-fashioned. In Frederick McCubbin's painting of his parents home in 1880s Melbourne (Plate 47), a Willcox & Gibbs sewing machine can be glimpsed in a far room, contrasting markedly with the makeshift colonial oven and grate in the kitchen. And whilst water had to be carried into the house — as evidenced by the dipper and water can — the kitchen had gas lighting.[72]

For an object to make its way into the colonial or Federation home, it had to be affordable, available and desirable. Whilst washing machines, wringers, cooking stoves and gadgets were all available to the Australian consumer — as were the means of making them affordable — they were not all that desirable. Until well after the First World War, a family was not prepared to make the sacrifices necessary to buy a washing machine that they would make for a piano. All a washing machine offered was a slightly easier way to do an onerous chore, whilst a piano offered access to the world of music, and, more importantly, conveyed to society at large the cultural aspirations of the family. A piano communicated 'civilization'. Patterns in consumer spending in the immediate post-war period — and indeed up until the 1950s — show that the home remained a conservative influence. Yet it is also apparent that the domestic ideal had great flexibility when new technologies, notably the motor car, arrived.

4. The 'Parlour on Wheels' Versus the 'Kitchen of Her Dreams'[73]

This new flexibility was responsible for what can be considered the two major consumer 'revolutions' within Australia during the first half of the twentieth century — electrical appliances and the motor car. Both promised economy, money saving, family

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72 For a discussion of this painting see Lane & Serle, *op. cit.*, 184.

73 'The Kitchen of Her Dreams — Electric', an advertisement for Australian General Electric Co. stoves, *The Bulletin*, 25 October, 1925, 6.

togetherness, and modernity. Both were expensive (in the case of the motor car, well beyond any previous household consumer product), difficult to use, and potentially dangerous. In different ways, both challenged the image of the home as a sanctuary removed from the world of work and industry. Yet one — the motor car — succeeded far more than the other in gaining almost universal aspiration. If, as Reiger argues, Australian housewives, disenchanted with the charms of the domestic circle, abandoned their nineteenth century ideals in search of modernity then the new 'electric servants' and their petroleum-driven cousins should have achieved equal acceptance. But as late as the 1950s this was not the case. To understand why this was so, it is necessary to look at the techniques used to promote electricity and the motor car, and the response of Australian households to these new technologies.

Electricity as a domestic power source was available in New South Wales from 1910. However, it was not until the 1920s that electrical appliances were sold in any numbers.[74] By 1923, only thirty-four per cent of Australian homes were electrically wired.[75] The unreliability of journals and magazines as indicators of Australian domestic material culture is illustrated by a *Building* article which, in 1908 claimed, 'The marvellous is commonplace now-a-days' and electric radiators, water heaters and kettles were readily available.[76] In fact, this was not the case at all and it was over a decade before there was any real market for them. By the 1920s, electricity and electrical appliances were being heavily promoted in *The Home*, *The Bulletin* and *Australian Home Beautiful*.[77] The potential for time and labour-saving was a major theme. A typical advertisement was that

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74 For a history of electricity in New South Wales see Andrew Spearritt, The Electrification of the Home in New South Wales, 1920-1960 (Unpublished BA Honours Thesis, University of Sydney, 1983); Colin Forster, *Industrial Development in Australia, 1920-1930* (Canberra: Australian National University Press, 1964), 103-127. For Western Australia, see Ruth Barton, 'Household Technology in Western Australia, 1900-1950', *Oral History Association of Australia Journal*, No 7 (1985), 108-129.

75 This was about ten per cent less than American homes at the time, but in advance of British homes. See Joann Vanek, Keeping Busy: Time Spent in Housework, 1920-1970 (Unpublished PhD Dissertation, University of Michigan, 1973), 2.

76 F.L. Greenhouse, 'Electricity and the Home', *Building*, 15 June 1908, 70.

77 In the United States, the three major electric refrigerator manufacturers spent $US45,000 on magazine advertising in 1923, rising to $US4 million by 1928 and peaking at $US20 million in 1931. This represented between $US5 and $US10 for each refrigerator sold. Susan Strasser, *Never Done: A History of American Housework* (New York: Pantheon Books, 1982), 265, 267.

for AGE electric stoves in the *Bulletin*: 'Electric cooking saves time, money, food, work and health'.[78] Small appliances were introduced as the new 'electric' servants. Thus Hotpoint proudly announced in 1925:

> There is a Hotpoint Servant for every household need. Hotpoint Electric Irons, Percolator, Toasters, Grills, Curling Irons, Heaters, Warming Pans, Electric Ranges ... unsurpassed in efficiency, dependability, convenience and economy.[79]

In other words, electricity was everything that the human servant was not. Spokeswomen for the electricity industry wrote detailed articles for women's magazines explaining why it was cheaper to spend £200 equipping a house electrically, than to spend £104 a year on 'Mary Jane', particularly since she was a 'dwindling band'.[80] Furthermore, with increasing tendencies 'towards shorter hours, towards social equality, towards Bolshevism (if you like), they [ie., servants] will dwindle still further.'[81] Housekeeping with electric servants would not only be less arduous, but also more 'scientific' and thus 'appeal to the intellectual woman'.[82]

Yet the presumption on which these arguments were based — that the Australian householder had a retinue of specialised servants who might be replaced by machines — was a myth. There was no shortage of servants in the 1920s because, in the wake of the post-war depression, demand for domestic help had fallen considerably. In fact, unemployment amongst domestic servants increased between 1921 and 1931, from six per cent to over sixteen per cent, a sure sign that the problem was not 'under-supply'.[83] Where in the nineteenth century, a middle-class housekeeper may have had the assistance of a young girl, by the twentieth century even this help had largely been abandoned. It is not surprising therefore that advertising of major electrical appliances failed to attract notable increases in sales, for the promise of a 'scientific' cottage was no more realistic in the 1920s than it had been in the 1890s.

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78 *The Bulletin*, 25 October 1923, 6.

79 *Australasian Electrical Times*, 27 February 1925, i.

80 The architect, Florence Taylor, had a regular column in Building and frequently wrote on the advantages of the electric home. See, for example, 'Home', *Building*, 16 April 1908, 60-65, 86, 88.

81 'The Conquest of Housework: A Practical Study of Mechanical Substitutes for May Jane (Deceased)', *The Home*, 1 December 1920, 86.

82 *Building*, 12 October 1927, 23.

83 Andrew Spearritt, *op. cit.*, 19.

This failure of Australian consumers to respond enthusiastically to the wonders of electricity remained a constant source of amazement to suppliers and retailers. Trade journals contained numerous articles bemoaning the fact that 'the services of the modern home are so seldom exclusively electrical. We must surmise that the public is largely ignorant of the benefits conferred.'[84] The *Australasian Electrical Times* was more perceptive, concluding that people (and particularly women) did not buy electrical appliances because 'they have not been taught by the salesman to want them sufficiently.'[85] All looked for encouragement to the American example, where there was a far higher level of appliance ownership:

> An inspection of many an American home reveals a floor lamp in the living room, an electric toaster on the breakfast table, a table lamp in the bedroom, with perhaps a vacuum cleaner for the entire house. Most Australian homes have a plain drop lighting point in each room, an iron and perhaps an electric fire or two .... All that we can say is that the housewife has not been sold on the proposition of the electric home.[86]

Indeed, a survey that year showed that, of the wired homes in Australia, three out of four had an electric iron, but less than one in four had a radiator; toasters, kettles and lamps could be found in only one in a hundred homes, and electric stoves and washing machines in less than one in a hundred.[87]

Similar evidence of low levels of ownership of electrical appliances can be found in a surviving collection of 1920s and 1930s auction notices from upper middle-class suburban Sydney and Melbourne. Although such households were the 'target audience' for *The Home* and *Australian Home Beautiful,* and certainly possessed large disposable incomes, the only modern appliance found in a majority was the iron. Only one house out of thirty had an electric stove; and altogether only two electric kettles, two toasters and one vacuum cleaner were listed. Most of the kitchens had a mix of old and new. The only 'modern' appliance in Major Barnwell's kitchen was an electric iron; meals were cooked on a coal

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84 *Building*, 12 May 1926, 21. See also *Australasian Electrical Times*, 27 January 1926, 38.
85 *Australasian Electrical Times*, 28 April 1924, 250, 251.
86 *Australasian Electrical Times*, 27 January, 1925, 45.
87 Spearritt, *op. cit.*, 23.

stove, floors swept with a carpet sweeper and clothes washed using an 'Invincible' Wringer.[88] 'Moorabbi House' at Brighton, the home of the late T.F. Hyland, made do with a gas ring and kerosene stove;[89] 'Moorak' had a Metropolitan Gas Company stove, and an 'old' ice chest, but an electric iron, floorpolisher, vacuum cleaner and radiator.[90] Only two households could be judged to reflect the sentiments promoted in *The Home*, replacing hired help with electric. 'Yallambee' in Auburn had a 'very fine "Baby Belling" electric stove and stand' and a Suburbia Gas Stove; it also had a Hotpoint electric waffle machine, covered dish and iron.[91] 'Yelvertoft' in South Yarra had both electric and gas grillers, an electric frypan, saucepan and iron, but it also had a range of nineteenth century utensils and gadgets including a Universal mincing machine, dripstone filter, and two wire meat safes.[92]

None of these houses had electric washing machines. All were far from being the scientific 'culinary department' with tiled walls, washable floor, and the latest in modern equipment that was such a feature of contemporary home magazines.[93] Advertisements during the Second World War, with their promise of the 'Dream Home' to be built after it, stimulated demand for electric appliances, but even then acceptance was selective. Although electric washing machines were enthusiastically promoted as a necessary part of the 'laundry of tomorrow, where effortless supervision of tireless electric servants ousts the back breaking

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88 *Catalogue of the Property Major F.C. Barnwell, Returning to England* (Melbourne, 1923), 13.

89 *Catalogue of the Contents, Moorabbin House, Brighton Beach: The Property of the Late T.F. Hyland* (Melbourne, 1920), 25, 26.

90 *Catalogue of the Contents, Moorak: The Property of the Late Walter H Schmidt* (Melbourne, 1930), 11, 12.

91 *Catalogue of the Contents, Yallambee, 25 Harcourt St, Auburn* (Melbourne 1937), 17, 18.

92 *Catalogue of the Contents, Yelvertoft, South Yarra: The Property of the Late May Brookes* (Melbourne, 1938), 32, 33.

93 See, for example, *Australian Home Beautiful Annual*, 1928, 50, 51. By the turn of the century the kitchen had become the focus of pattern books and architectural plans, replacing the parlour as the subject of main interest. However, in Australia it was not until after the Second World War that extensive new home construction would enable a major remodelling of this room. See Judith Fryer, 'Women and Space: The Flowering of Desire', *Prospects*, 9 (1984), 187-230; Cheryl Robertson, 'Male and Female Agendas for Domestic Reform: The Middle Class Bungalow in Gendered Perspective', *Winterthur Portfolio*, 26(2/3),(1991), 123-141.

tasks of wash day',[94] in 1949 the demand for electric stoves was still five times higher — and refrigerators eight times higher — than the demand for washing machines.[95]

Of course, cost was a factor. *A Review of the Australian Domestic Appliance Industry* (1950), compared the cost of buying a washing machine in the United States, which at $US120 represented 2.4 weeks wages, with Australia, which at £65 was 6.5 weeks wages. The result was that sixty-seven per cent of American homes had washing machines, and less than two per cent of Australian.[96] But cost alone was not sufficient explanation. Refrigerators were just as expensive, yet far more people bought them than bought washing machines. Furthermore, time payment gave a means of buying these expensive consumer items if people really wanted them.[97]

The conclusion that must be drawn is that, faced with a wealth of choice, Australian householders' first priority was to buy goods that contributed to the overall 'comfort' and 'convenience' of the family. A refrigerator, with its promise of cool drinks, ice cream and fresh food, was a more 'satisfying' family purchase than a washing machine. Consumers were not seeking a modern, scientific cottage, but rather a contented and happy family life. Time and again, women surveyed by the General Federation of Women's Clubs in 1926 stated that they would rather have a motor car (or a telephone) to help them escape the monotony of their lives, rather than a machine to ease the drudgery.[98] Mrs J.L.G. of

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94 *Australian Women's Weekly*, 11 April 1942, quoted in Andrew Spearritt, *op. cit.*, 43.

95 *Brief Review of the Australian Domestic Appliance Industry: Commonwealth of Australia, Ministry of National Development, Industry Review Series Number 19* (Canberra: Government Printer, 1950), 5-9.

96 *Ibid.*, 7.

97 The *Australasian Electrical Times* promoted the use of time payment claiming it 'creates quite a large amount of new business'. *Australasian Electrical Times*, 27 September 1922, 495. By 1951 time payment was accounting for seventy-five per cent of household purchases in Australia. Andrew Spearrit, *op. cit.*, 54.

98 The General Federation of Women's Clubs was an international organisation, formed in 1889 and included a number of Australian clubs, amongst them the Federal Association of Australian Housewives and the Karrakaffa Club. The survey began with 223 communities (and half a million homes) in the United States; a second survey looked at 32 million people in 2,228 different towns and 25,000 rural homes. Mildred White Wells, *Unity in Diversity: The History of the General Federation of Women's Clubs* (Washington, D.C.: General Federation of Women's Clubs, 1953), 184, 511.

Missouri wrote that she 'would rather have a telephone than a power washer'; Mrs A.T. of New York reported:

> I bake my own bread ... do most of the children's sewing. Still I do not mind ... thinking of the time when I can afford first the electric washer and sewing machine, then the vacuum cleaner .... Our automobile makes up for lots. It certainly is a comfort and joy to our family.[99]

The authors of the survey — the middle class members of the GFWC — were shocked by the results, and its 'undisputed evidence' that American women did not live 'efficiently'. Just as nineteenth century households chose to buy pianos rather that ice chests, so in the twentieth century household:

> We do not avail ourselves of sanitary and labour saving equipment; but prefer certain luxuries and recreations as release from almost primitive forms of domestic facilities .... Automobile and telephone, phonograph and piano outstrip in relative numbers the electric washing machine, the electric vacuum cleaner, the mechanical refrigerator. They even outrank the stationary laundry tub for the country as a whole.[100]

In contrast, the motor car 'arrived' in Australia in the 1890s, and by 1911, 3,975 were registered in New South Wales — a figure that trebled over the next five years, and doubled again by 1921, reaching 104,675 in 1926.[101] The motor car — like the sewing machine and piano in the nineteenth century — provides a good example of the available object that, whilst totally unaffordable to working and middle-class families alike, was nonetheless so desirable that great sacrifices were made to get one. It is significant that in the early years of car retailing in Australia, *The Home* (decidedly a woman's magazine) was used to promote the motor car just as much as the electric kitchen.[102] Contemporary accounts reveal that Australian consumers, like their American counterparts, found the automobile far more attractive than a new cooking stove or refrigerator. In her memoirs of life on a

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99 'The Home Equipment Survey', *Women's Home Companion,* March 1926, 34.

100 Mary Sherman, 'The Home Equipment Survey', *Women's Home Companion,* November 1926, 15.

101 *Annual Report of Motor Vehicles* (Sydney: Government Printer, 1952), 45. For a history of the motor car in Australia see Lester Hovenden, 'The Impact of the Motor Vehicle, 1900-1939', in Garry Wotherspoon (ed.), *Sydney's Transport: Studies in Urban History* (Sydney: Hale & Iremonger, 1983), 139-155. See also Geoffrey Blainey, *Jumping Over the Wheel* (Sydney: Allen & Unwin, 1993); Pedr Davis, *Australians on the Road* (Melbourne: Rigby, 1979).

102 A 1960s Australian survey *Who Decides?,* found that decision-making varied according to the type of appliance. For the purchase of a stove in sixty-one per cent of cases women made the decision, with the husband and wife together accounting for eleven per cent and men, twenty-eight per cent. For the washing machine, the respective figures were forty-eight per cent, eleven per cent and thirty-one per cent and for the vacuum cleaner, sixty-two per cent, twelve per cent and twenty-six per cent. Spearritt, *op. cit.,* 57. For a discussion of women as consumers see Reekie, *Temptations, op. cit.,* 53-62.

soldier settlement rice farm near Griffith, Doris Cheesbrough recalled how, in the 1930s, as a young married couple, she and her husband replaced their horse and cart with a truck (bought on time payment) whilst their home remained an unlined shack without electricity or running water, and the kitchen 'a hovel that Ted had the grace to call "kitchen" merely because in the farthest dim corner stood a fearsome-looking grimy fuel stove.'[103]

By the mid-1920s, when electrical salesmen were complaining of a lack of interest in their products, Australians were second in the world in per capita car ownership, after the United States. In 1925, *The Home* claimed that:

> There was a time not so far in the past when the car was a luxury and a non-essential. To-day this idea has wholly disappeared and now the car is regarded as much a factor in a community's progress as the telephone; the electric light or the railway.[104]

The £200 necessary for 'a good serviceable car to suit the man of modest means' should in reality have placed it well outside his reach.[105] Yet, the numbers of cars sold indicate that families were prepared to make the sacrifices necessary to secure the £50 deposit, and to meet the monthly repayments. When asked why her family had bought a Model T Ford whilst they still did not have indoor plumbing, an American farm woman explained: 'Why, you can't go to town in a bathtub!'.[106] Similar sentiments echoed in Australia where the Bishop of Bendigo accused married couples of foregoing the pleasures of parenthood so that they could afford to run a motor car.[107] *Mr and Mrs Newlywed*, a 'domestic manual' produced by Sydney merchants in 1924, defined the motor car as an example of 'True Economy .... When a luxury becomes a necessity'.[108] In 1923, motorists gathered in Sydney to protest at the harsh regulations of the *Traffic Act*. The President of the National Roads Association of NSW argued that:

> There is evidently still a lingering belief in some people's minds that the motor-car is a luxury and a rich man's plaything. Whatever justification there may have been

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103 Doris Cheesbrough, *Here Comes the Bailiff* (Griffith: McCudden Bros, 1974), 22. See also the discussion of cars in Janet McCalman, *Struggletown: Public and Private Life in Richmond 1900-1965* (Melbourne: Melbourne University Press, 1985), 143.

104 *The Home*, 1 April 1925, 15.

105 This was the price quoted in *idem*.

106 Quoted in Joseph Interrante, ' "You Can't Go To Town In A Bathtub": Automobile Movement and the Organization of Rural American Space, 1900-1930', *Radical History Review*, 21,(1979), 151-168 at 151.

107 Hovendon, *op. cit.*, 141.

108 *Mr and Mrs Newlywed* (Sydney, 1924), 151.

> for that 15 years ago, it is a totally erroneous point of view to-day. To-day the motor in its various phases is an increasingly important factor in the transaction of business and industry.[109]

Whilst in 1923 this might have been somewhat in advance of reality, motor car registrations grew exponentially, slumping in the worst years of the depression, but then quickly recovering.[110] In their study of American living standards, the Lynds of 'Middletown' found the automobile to be one of the most depression-proof elements of the family budget. Families would give up a great deal before they would sacrifice their motor car.[111] The same was true in Australia. By the late 1930s about one in five Australian families had a motor car whilst less than two in a hundred had a washing machine.[112] Undoubtedly many made choices like Ernest Moroney, who thought it more important to own a car than a home, since the 'magical outings a car made possible could dissolve "disharmony" in the family'.[113]

During the inter-war years, the American-oriented lifestyle embodied in the car replaced the home as the focus of Australian family life, and took the central place once occupied by the static, English-oriented, 'Homeward-looking' parlour. As the Lynds reported from their study of 'Middletown', the automobile was:

> making noticeable inroads upon the traditional prestige of the family's meal-time .... rather than sitting talking around the dinner table or in the parlor, the family engaged in such activities in the automobile — their mobile, personal, 'parlor on wheels'.[114]

It had the added advantage of instantly conveying, through its make and model, the social standing (or aspirations) of the family.[115]

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109 *Good Roads*, 15 December 1923, 5.

110 In 1921 there were 28,685 private cars registered in New South Wales; in 1926, 104,675; in 1930, 164,169; in 1934, 161,342 and in 1938, 212,002. The drop between 1930 and 1934 was not due to a fall in number of cars on the road but rather an adjustment to show actual numbers of cars being driven. *Annual Report of Motor Vehicles, op. cit.*, 45.

111 Fuel consumption levels remained fairly constant throughout the depression in the United States. Winifred D. Wandersee, *Women's Work and Family Values, 1920-1940* (Cambridge, Mass.: Harvard University Press, 1981), 37.

112 Andrew Spearritt, *op. cit.*, 69.

113 Quoted in John Rickard, 'For God's Sake Keep Us Entertained' in Bill Gammage and Peter Spearritt (eds), *Australians 1938* (Sydney: Fairfax, Syme & Weldon, 1989), 347-363 at 348.

114 Virginia Scharff, *Taking the Wheel: Women and the Coming of the Motor Age* (Albuquerque: University of New Mexico Press, 1991), 59.

115 As the Lynds went on to report: 'A home is more visible; but it does not accompany its owner from point to point and its [the car's] costs can be roughly approximated by a layman', *ibid.*, 60. See also Neil Harris, 'The Drama of Consumer Desire' in Otto Mayr and Robert C. Post

However, the success of the motor car also illustrates the flexibility of the domestic ideal. Theoretically, by taking the family away from the hearth, it threatened the heart of Australian family life. Yet, both the means used to promote the car and consumers responses to it indicated that the motor car was romanced by the home and, despite taking the family away from it, did so in an environment of heightened 'domesticity'. Just as domestic technologies failed to revolutionize the home, so the motor car whilst 'stretching' the influence of the family home, did not displace it. As cities sprawled, cars made homes in the suburbs an ever more practical retreat from the reality of urban life. Whether or not the family that drove together actually stayed together, this representation of the car was an ideal to which consumers warmed (Plate 48).

The result of increasing car sales was to reduce significantly expenditure on other household goods. American spending on 'transport vehicles' rose from an average of 7.5 per cent of household expenditure in the last three decades of the nineteenth century, to 41.8 per cent a half century later. Over the same period, spending on household appliances rose only marginally, from 5.9 to 9.6 per cent.[116] The impact on Australian spending would have been similar, and inevitably must have delayed the modernization of 'Emoh Ruo'.

Conclusion

If the cases examined above — stoves, gadgets, washing machines, irons and sewing machines — are indicative, it is clear that the efforts of reformers, politicians, educators, manufacturers and advertisers to modernize the Australian home and the Australian family were, on the whole, either unsuccessful, or incomplete as late as 1950s. Even whilst women

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(eds), *Yankee Enterprise: The Rise of the American System of Manufactures* (Washington, D.C.: Smithsonian Institution Press, 1981), 189-213 at 209.

116 Olney, *op. cit.*, 44.

were having fewer children, and giving birth to them in hospital rather than in their own homes, these children lived in homes whose organisation and material culture reflected the traditions of an earlier century. Change there may have been, but change was gradual and — rather than being forced upon women by male manufacturers, retailers, advertisers and architects — was a change brokered by women themselves. Women shopped in the department stores, read the magazines, and chose the furniture. And whilst labour-saving machinery and the avoidance of drudgery might have held great attraction, the 'enchantment' of the home and the importance of the 'merry family circle' held more. What time and money Doris Cheesbrough and her husband had to improve their home, they gave not to pulling down the 'lean to' kitchen, but to furnishing a parlour. A fireplace replaced the slow combustion stove, walls were lined and painted, sideboard, dining table and comfortable chairs installed:

> A seascape went over the mantlepiece. We dotted water colours round the walls. In a positively blissful state I sailed about for days arranging and rearranging ornaments and plates, brass and nicknacks ... setting out glasses and decanters on the sideboard .... so cosy yet attractive, so full of rich things yet homely .... So proud we were.[117]

By then the Cheesbroughs did not have an electric oven, but they would have a car. Their neighbours would also, whether or not they had a washing machine or a refrigerator. Even today, when more often than not there are two cars in the garage, fewer than thirty per cent of Australian homes have dishwashers, yet dishwashers (along with washing machines) are judged as one of the appliances which really does make a difference to housework.[118]

In the introduction of new technologies into the home, practical need has never been the major consideration. Of course, the ability of a machine to do the work is a factor, but more important is the household's perception of its social and cultural signficance. Australians who have been keen consumers of the new in field and factory, have tempered their home consumption by considerations of the potential to contribute to — or threaten — the domestic ideal. The power of that ideal is evident in its ability to successfully romance the machine and preserve the enchantment of the home.

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117 Cheesborough, *op. cit.*, 62, 63.

118 *Southcorp Holdings Limited Annual Report, 1995* (Adelaide: Southcorp Holdings Ltd., 1995), 26.

Plate 45



THESE TWO, IF JOINED TOGETHER, MIGHT LIVE A MORE COMFORTABLE AND HAPPY LIFE.

'Cartoon', *Castner's Monthly and Rural Australian*, 1 December 1879, 343. Mitchell Library, State Library of New South Wales.

In its poems and short stories, *Castner's Rural Australian* was a keen advocate of marriage. For their 1879 Christmas issue, the magazine drew its male readers' attention to the happiness and comfort that marriage could bring. A neat parlour, with books, pictures and plants could all be his — as well as someone to make and mend his clothes — if only he would abandon his makeshift bachelor life. Significantly, the sewing machine was an essential part of this feminine domesticity.

Plate 46



'The Kitchen: The Heart of the Home', *The Australian Magazine*, 9 March, 1996.

In this 1990s ideal of the kitchen, the latest in labour-saving appliances sit next to a decidedly old-fashioned slow combustion stove. In the accompanying text, much is made of the need for 'warmth' and 'sociability' in the kitchen, which the author describes as 'the domestic indicator of our sense and sensibilities'.

Plate 47



The Seamstress's Reverie, oil painting by Arthur Loureiro, 1887. National Gallery of Victoria

The presence of the machine does not detract from the romantic enchantment of this scene. Quietly stitching away, the painter's wife, Marie Thérèse Loureiro, has the same combination of tranquility and industry that was evident in the painting of a woman hand sewing.

Plate 48



'The Joy of Motoring', *The Home*, February 1920, 49.

Car manufacturers and retailers advertised extensively in *The Home*. They promoted the car as a natural part of family life, opening up 'new fields of pleasant possibility'. The Ford was not a luxury, it was 'the car you need'.

CONCLUSION

In 1788, the settlement on the east coast of Australia that came to be called 'New South Wales' offered seemingly limitless potential for a new society in a new world. The lie of the land, its vegetation, climate and fauna were all entirely new and different. The way was therefore opened for a rejection of the traditions of the mother country and the establishment of a new utopia — an Australian Eden — with new forms of social relations, domestic and civic structures and government. But this was not the vision, either of the administration or of individuals. The vision, as Darwin would later declare in his poem, *Visit of Hope to Sydney-Cove, Near Botany Bay*, was of a new world modelled precisely on the old:

> Embellish'd villas crown the landscape-scene,
> Farms wave with gold, and orchards blush between —
> There shall tall spires, and dome-capt towers ascend,
> And piers and quays their massy structures blend ....[119]

Critical to this vision was the home.

Given its importance, it is curious that the history of this home has been neglected by Australian historians. Beverley Kingston and Kerreen Reiger have seen the Victorian home as characterised by revolutionary change, as machines and new work practices replaced traditional ways of doing things. But neither examined the material evidence for this change. Studies by architectural historians and curators of decorative arts which have examined the home's material culture, have focussed upon stylistic changes in its design, construction and decoration. But the reasons why those styles were adopted in the first place have been largely neglected, and few have tried to decipher the importance of their material surroundings to settlers, and the influence of their particular Australian experience of migration. Although it could be argued that separation from traditional frameworks left Australians open to innovation and experiment — as evidenced by the tradition of 'making-do' — it is also apparent that when it came to the home, colonists were anxious to

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119 This poem appears as the frontispiece to Arthur Phillip's account of the first years of Sydney, *Voyage ... to Botany Bay, 1789.* Quoted in Stephen Martin, *A New Land: European Perceptions of Australia, 1788-1850* (Sydney: Allen & Unwin, 1993), 2, 3.

replicate the same structures, layouts, and institutions as they had known (or remembered) in Britain. Whilst they might experiment with building houses from eucalypt slabs, making furniture from cedar trees and hats from the cabbage tree palm, all were modelled on accepted British patterns.

This thesis has argued that the history of the home has an important role to play in understanding Australians' response to technology. For the ability of the home to change and adapt to new circumstances says much about the technological responsiveness of a society in general. With so little recent discussion in the area, it is tempting to apply British and American models to the Australian domestic environment. But this can be as misleading as it is relevant. For Australia is a different country; and we have done things differently here.

In both theoretical and empirical terms, the analysis of domestic technology as material culture and consumption practice lies at the intersection of four discourses: the history of technology, the history of domestic life and consumer culture, and the contextual history of material culture. Each has been critical to understanding the particular impact of domestic technology and to the central argument of this thesis, that responses to new technologies in the Australian home between the goldrushes and the First World War were varied and complex. This interpretation has significant implications for an understanding of the ways in which Australians have come to view the advantages and limitations of new technologies.

In their research on domestic technology, American and British interpretations commonly focus on what is assumed to be the radical transformation caused by the new technologies of the machine age. However, beneath the enthusiasms and assurances of manufacturers and retailers, emerges in Australia a far more complex history. *Romancing the Machine* has therefore begun where most histories of domestic technology end. It has argued that the process of domestic technology 'take-up' was slow, irregular and conditional; that contemporary advertisements did not necessarily convey a true picture of consumption;

that conservative practices delayed the 'industrialization' of the home, deliberately reserving it as a domestic, feminine space, in contrast to a masculine 'workplace'; and that even where new technologies were successful (and several were), they did not necessarily address or alter the time and labour-saving equation.

If the commonly accepted justification for the successful adoption of a domestic technology — time and labour-saving — does not apply, a range of other factors certainly do. This thesis has invoked explanations proposed by Bijker, Pinch and Schwartz Cowan, which discard a linear approach to technological transfer and take-up, and open the way to a multi-directional analysis. Rather than focussing upon the linear history of given inventions or manufactures, this thesis has looked laterally at the ways in which design, promotion and sales techniques were used to advance these technologies, and at the effect of these devices upon domestic consumption.

I have chosen to concentrate upon new technologies that affected three major areas of Australian housework: food preparation, the manufacture of clothing and the maintenance of clothing and household linen. In determining the rate and direction of technology transfer, I have suggested that social and cultural reservations often outweighed economic and technical advantages. It is significant that the two most successful examples of take-up were the iron and the sewing machine. Although a complete exploration of their success is complex, what is essential was their potential to create and sustain 'respectability' — the social value so beloved of colonists across the social scale. Rationality was hostage to respectability. It was quicker to buy clothes ready-made or not to iron them at all; yet diaries, letters, and domestic guides reveal that endless hours were spent making clothes and ironing them to perfection. Whether or not consumers looked for domestic technologies to reduce household work — and the evidence suggests technologies typically let them down — consumers were not looking for savings in time or effort but for something else.

There have been two earlier studies of domestic life in nineteenth century Australia. In these, Beverley Kingston and Kerreen Reiger assume that the modernisation of the Victorian home was well underway by 1900, as labour-saving technologies replaced the labour of paid domestic help. However, the sources they used to support this view — particularly, trade catalogues and advertisements — can be given quite different readings. Manufacturers' assurances about the capabilities of their machines did not necessarily reflect such acceptance and can be read instead as an attempt to overcome deeply held reservations. Likewise, a retailer's enthusiastic endorsement of the 'scientific cottage' can just as readily be interpreted as salesman's 'puffery', as taken to indicate consumers' commitment to the principles of scientific management. The fact that Victorian manufacturers of sewing machines and cooking stoves — which were singularly successful — consciously gave their products the aesthetic of the parlour, whilst washing machines and gadgets — which were not — remained unashamedly industrial, suggests the presence of deeply entrenched, conservative values. Confronted by the mechanical wonders of the age, these values domesticated expressions of modernism, thereby preserving the enchantment of the 'domestic circle'.

A major difficulty in analysing the material culture of this 'domestic circle' — and of patterns of consumption in domestic technology — remains the limited availability of statistical and inventory evidence for nineteenth century Australia. The appearance of appliances in advertisements, in exhibitions and in department stores, does not automatically imply that people actually bought them, or did so in great quantities. Christina Hardyment in England, and Reiger and Kingston in Australia, have taken the availability of domestic technologies as evidence of their use, thus producing a circular argument. To determine what was actually bought, we must look much more closely at surviving records that document the material culture of the home, together with published descriptions of the way objects were promoted. In so doing, we look more closely at the assumptions made by writers in domestic economy, and the actual content of courses in 'home economics' that ostensibly played so important a role in modernising the home.

Once this is done, it is apparent not only that different domestic technologies enjoyed different degrees of saturation, but also that social and cultural factors played a key role in determining the difference. Modernisation was therefore not a single movement, or a coherent set of practices, in which households, seduced by the new, abandoned traditional ways. Rather, like the technologies themselves, the domestic context responded in a complex stop-start process, where developments in some areas far outpaced others.

The description of this process relies upon analysis of household inventories. Although there is an extensive American and European literature on the importance of inventories in understanding the material culture of everyday life, such sources have rarely been used in Australia. Yet, auction notices and insolvent estate records provide a rich source of information about households, their attitudes to consumption, and their priorities in purchasing. Moreover, through them it is possible to trace changes over time in the gradual increase of material possessions. In looking critically at the primary literature and the historiography it has inspired, this thesis has sought to augment and qualify the arguments of Kingston and Reiger by applying analytical frameworks similar to those used by American historians of material culture, particularly Kenneth Ames and Patricia Brewer. Their emphasis upon the importance of design, materials and construction in the consumption history of a particular object — and their reading of objects as 'texts' — helps us better understand the reasons why certain technologies were adapted, others rejected, and still others greeted with indifference.

In setting out this argument, Chapter One described the environment these new domestic technologies were about to enter, the social and cultural values that shaped a new emphasis on material possessions, and the particular constraints imposed by a colonial culture largely dependant upon overseas models, traditions and imports. As in Britain and America, the doctrine of separate spheres transformed the nineteenth century home from a relatively spartan, masculine space, to one with a feminine, family-centred culture of domesticity, where the 'merry family circle' became the primary consideration. Essential

to this was a dependent female middle-class charged with the creation and care of that environment. The fact that colonial society was an immigrant culture acted conservatively upon the values of that circle. Although, on the one hand, the comparative 'newness' of the society allowed a certain social mobility — and gave the material culture of the home even greater importance — the anxieties implicit in migration also resulted in an almost slavish observance of 'proprieties'. Such was the case on the eve of the goldrush, and the disorder and chaos that followed the discovery of gold did little to change this approach to the ideal middle-class home. As a result, although colonists liked to think of themselves as open to innovation and improvement — and indeed were so, on the farm, in small business, in manufacturing and in the mines — in fact they were extremely conservative when it came to changing either the appearance or the work practices of that other key site, the home. Inventories and auction notices therefore reveal a surprisingly inflexible allocation of space within colonial houses, and an extraordinarily consistent 'recipe' of contents. Both homes and gardens were defining spaces for middle-class culture and the achievement of home, garden and family was a powerful symbol of success in colonial Australia.

The conservative tendency of the nineteenth century home becomes apparent in the histories of the technologies discussed. Chapter II underlined the significance of social and cultural factors — notably, the appeal of the 'cheerful fireside' — above practical motives in the chequered history of the cast iron cooking stove. Although the arrival of the stove coincided with a new emphasis on food and on meal preparation as a unifying force in the family, Australian consumers were slow to respond to its seduction. When 'success' came, it was because two factors caused households to abandon traditional cooking practices: the rising cost of wood, which made the open fire impractical; and a new image of the family, gathered around the dinner table rather than in front of a blazing hearth. Once the cooking stove reached closure and was accepted as a necessary part of the home, its design moved away from a domestic aesthetic of elaborate decoration towards a new simplicity of line such as would be appropriate to the kitchen as laboratory and workplace.

Yet such seduction was not without a sense of loss, and well into the twentieth century consumers still harkened back to the 'fireside pleasures of domestic life'. Even pinnacles of the domestic science movement like Mrs Wicken refused to believe that stoves could roast meat properly.

Chapter III took as its focus that archetypically Victorian product, the gadget. If, as Hardyment and Kingston would have us believe, the nineteenth century household enthusiastically embraced the wheels and cogs of the apple peeler, cake mixer and egg beater, this could be taken as proof positive of a desire for modernism, and a preparedness to abandon past practice and celebrate the new. Yet it is clear from the literature and teaching of domestic economy in schools of New South Wales and Victoria, that any extensive commitment to science in the home was token and superficial. Women visiting the exhibitions or browsing in department stores appear to have had little interest in these examples of the genius of the Victorian age. Only when the electric motor gave substance to the claims of gadgets to be time and labour-saving would they finally become accepted, and even then their cost would keep them out of most Australian homes until after the Second World War.

The case studies in the next three chapters elaborated this set of arguments in the production and care of clothing and household linen. Chapter IV examined the case of the washing machine and demonstrated that the promise of time and labour-saving did not alone persuade consumers to buy a new technology. The family wash was the worst job in the home, and the one that was universally loathed. Although doing the wash was women's work, it was not 'feminine', and of all the workplaces in the home the laundry was the last to be 'domesticated'. Whereas some women wrote of the enjoyment of making clothes or the achievement felt in having prepared a well cooked meal, none spoke of washing with anything but resignation, if not despair. Yet, although a range of mechanical solutions was offered to the nineteenth century housewife, the 'take-up' was extremely slow and, like the cooking stove, the washing machine failed to reach closure in the nineteenth century. At

least two factors accounted for this: cleanliness was an essential requisite of middle-class and working-class social status, and doubts were held about the ability of machines to wash as well as the old hand methods; furthermore, washing was considered an activity of such low status as to be almost beneath considerations of spending money on machinery. Whereas the mechanical qualities of the sewing machine could be softened by japanning and gilded transfers, there was no softening of either the washing machine or its workplace. The home failed to romance the washing machine. It was only when the electric motor vastly reduced the heavy labour involved in scrubbing and wringing clothes, that these machines enjoyed any measure of success, and even then their diffusion was far from universal.

Although not a new technology, the irons discussed in Chapter V became increasingly sophisticated in the second half of the nineteenth century and, in contrast to the other technologies mentioned so far, were regarded as an absolute necessity. Journalists, authors of domestic guides, and teachers of home economics all assumed that households would have at least one iron and preferably more. Unlike preparing food, mincing meat or washing clothes, there was nothing intrinsically necessary about ironing. But the job it did — the transforming of textiles by producing smooth, highly 'finished' surfaces — was so culturally important as to ensure its success. Indeed, so important did ironing become that by the 1880s, a stiffly starched damask tablecloth and the wearing of starched white cotton underwear had become major indicators of class. With the iron therefore, it was not so much the case of a machine being romanced, as the task itself.

Chapter VI concluded the case studies with an analysis of the introduction of the sewing machine. With the iron, this was undoubtedly the most successful of all the technologies discussed, and the one to be most readily embraced by the Victorian household. Although time and labour-saving were major features in their promotion, it is now clear that it was not for these reasons alone that such machines were bought. Developed initially for industrial use, their design and decoration were transformed to comply with a domestic

aesthetic. Unlike stoves and washing machines, sewing machines quickly reached closure. As a result, they became as central to the ideal of 'separate spheres' as had been the earlier image of a woman quietly sewing by hand. Romanced by the home, the sewing machine became essential to the romantic ideal of the family. The history of the sewing machine also provided a good example of the way in which a potentially labour-saving machine could actually increase labour. For once it was possible to sew quickly, women wanted to make not only the simple gowns that had been characteristic of hand sewing, but also far more elaborate ones, with gathers, tucks, applied ribbons and braids and with masses of white underwear similarly tucked and frilled. Indeed, the spectacular success of the Singer Sewing Machine Company highlighted the fact that technical excellence was less critical to commercial success than popular perception. Although less well finished than rival machines and subject to poor performance, the Singer still far outstripped its competitors, thanks to massive expenditure on advertising, an innovative system of supply and after-care, and, above all, the availability of a hire purchase system.

The final chapter returned to the home of the Australian middle-class on the eve of the First World War. It argued that, far from being on the brink of welcoming modernisation, Australians preferred their homes to be safe from modernity. Although materially the Edwardian home was far more lavish than its Victorian equivalent, pianos, furniture suites and parlour settings were chosen to reinforce the domestic ideal rather than to challenge it. Whilst the Edwardian woman might be taught to cook by a home economist instead of by her mother, she remained more interested in lessons about 'dainty teas' than about nutrition and diet.

Between the goldrushes and the First World War, the middle-class home in Australia's capital cities was, and remained, a haven from the work of the shop, the factory and the farm. Whilst new technologies had arrived, their success was varied and was entirely dependant upon their ability to be in turn 'domesticated'. For only if domestic technology could reach technical closure and become part of the 'enchantment' of the domestic circle

would it succeed. 'Disenchantment' would come when the demands placed on household income by the new world of goods could only be met by women working for wages, with the result that the home could no longer be regarded as a separate spiritual and moral economy, a sanctuary from the cash economy. Rather, the home was now irrevocably tied to it.

When, recovering from the First World War, 'Mr and Mrs Newlywed' of the 1920s were faced with the choice between the modern 'electric' home or the modern motor, they invariably chose the latter. Whilst the popularity of the motor car in Australia can be read as an example of the family's ability to accept 'revolutionary' change, it must also be seen as further evidence of the strength of the domestic ideal. For the motor car did not transform the home, but rather was domesticated by it. Not only was it given its own domestic space — the garage — but its appearance also took on a 'feminine' aesthetic, through the introduction of colour ranges and finishing options. By the 1930s, the motor car had become Australians' 'parlour on wheels'.

The labour-saving technologies that today are seen as so typical of the late nineteenth and early twentieth centuries had little attraction to the colonial household. Made from industrial materials, complex and complicated, they threatened to bring all the noise, grime and confusion of the workplace into the home, with few of its advertised benefits. The factors that determined the success of a new technology in that environment were therefore not based on performance, on time and labour-saving, or even on efficiency. They were determined by the values that were uppermost in the minds of householders; and these concerned maintaining the security of the family unit whilst achieving — or sustaining — what was regarded as its rightful place in respectable society. Women took on new technologies where they believed machines could be incorporated into, rather than challenge, the existing domestic environment. Where they could not be incorporated, they were not assimilated and the technologies were either not purchased or, as with the washing

machine, remained ostracised to a 'workspace' set well away from the charm of the domestic circle.

Change came late, in some cases as late as the 1950s, when half the Australian homes that had electric refrigerators, cooking stoves and sewing machines did not have electric washing machines, despite the fact that washing was regarded as the worst household task of all. But in the decades after the Second World War, as Australians shifted their domestic identity away from Britain and towards America, new attitudes emerged to qualify domesticity and the integrity of the 'family circle', and the myths of its romancing powers. Australia began to move away from British traditions of architecture, domestic space, landscaping and work practice, and to discover new definitions of the modern and the machine. Slowly, the sharp boundaries between work and home that were so characteristic of the nineteenth century cult of domesticity dissolved. In their place, arose the the home of today a home that, whilst undeniably mechanical, nonetheless continues to successfully romance the machine and preserve the enchantment of the domestic circle.

Plate 49



The Webber Family and their Station-Waggon, Queensland, 1966.

By the 1960s, the automobile had become the focus of Australian family life. But the charms of the domestic circle still held great attraction and the station waggon performed the same function as had the parlour and the cheerful fireside, of bringing the family together in an image of domestic harmony.

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