

## CHAPTER 3

THE 'HARDEST, MOST UNPLEASANT'  
PROFESSIONTHE WORK OF LAUNDRESSES IN EIGHTEENTH-,  
NINETEENTH- AND TWENTIETH-CENTURY SPAIN*Carmen Sarasúa*

I know, and we all know places not too far from here, in this very peninsula, where women do the hardest and most gruelling work ... where they work alongside men doing all the same activities and the very same work. There are still some trades in which our women seem to want to exceed the women of ancient civilisations. Among these trades, washing was almost exclusively a male profession. Is there any job which is harder, more unpleasant or more open to discomfort and danger? Well, this job is now done exclusively by women in the courts and the major cities ... Where, then, is women's disproportionate loathing of work?

(G.M. de Jovellanos, *Report Presented to the General Committee of Trade and Currency on the Free Exercise of the Arts*, 1785)

In 1785, the Enlightened thinker Gaspar de Jovellanos was requested by the General Committee of Trade and Currency to report on the project to reform the laws regulating trade guilds which had 'left work in few hands' and, in particular, 'almost entirely kept women from practising trades'. There was discussion about the possibility of enacting a law specifying the activities which women were allowed to do. Jovellanos was of the opinion that there was absolutely no need for any law because if women were unable to do a certain job due to lack of physical strength, they simply would not do it. Likewise, he drew attention to the fact that there were many physically demanding jobs regularly performed by women, not only among peasants, but 'in the courts and in the major cities'. Laundresses were the best example he could find.

In recent years, various papers have been published on the industrial and technological history of laundering, the organisation of work in this industry (and especially changes in the gender composition of the workforce) and its eventual transformation, with the mass commercialisation of automatic washing machines after the Second World War, into an activity carried out by housewives as part of their unpaid housework.<sup>1</sup> In various European countries there are local museums dedicated to the history of this trade, which was mainly performed in rural areas near the major cities.<sup>2</sup> Halfway between ethnography and industrial archaeology, these museums have reconstructed the work processes, conserved the tools and utensils and gathered together photographs and posters, all of which are displayed in exhibitions and publications.<sup>3</sup> In Spain, however, the social, economic and technological history of this activity is practically unknown: there have been no studies on laundries or on washing as an industrial activity except for Mercedes Tatjer's recent article on laundries in the city of Barcelona.<sup>4</sup>

Such a void cannot be explained by the fact that the activity involved few workers. Laundry work was one of the main activities in the nineteenth century: in England and Wales it was the eleventh occupation by number of workers according to the census of 1861 with 167,607 workers, a figure which had reached 205,015 workers by 1901.<sup>5</sup> It should also be noted that the official censuses and figures only registered a certain proportion of these workers, since, just as with other activities done by women, many others were registered as working 'at home', or doing other activities.<sup>6</sup> However, in addition to the number of female workers employed, this activity is significant for two other reasons. First, washing clothes was a vital source of income for poor families (a large proportion of which were headed by women) and it is therefore key to understanding rural and urban subsistence economies. What is more, it provides an exceptional opportunity to study the origins of the service sector and its development alongside the growth of the population and cities, changes in the purchasing of garments, in hygiene and in the standard of living of the middle classes.

Our lack of knowledge of this and other occupations should be considered to be the result of the general backwardness of labour history in Spain, especially in terms of economic history, which has concentrated on studying and measuring (preferably in mathematical terms) the product, without any interest in the producers (in the organisation of work, institutional involvement, salaries, the impact of technological change, training systems, unemployment). It is also the result, fundamentally, of the massive lack of information about the work carried out by women, who were still defined as *jobless* or, at best, *secondary workers*.

This chapter is simply intended to be an introduction to the study of this profession and this 'industry'. It intends to trace the main lines of its historical transformation, emphasising two issues: the way in which it was transformed after successive technological changes; and the industry's social evolution, from an almost exclusively female wage-earning activity to an industrial, wage-earning activity, and later an unpaid, domestic activity.

## The Washing Process and Washing Technique

The washing process began by going to the houses to collect the clothes. Particularly in the cities where the laundries collected clothes from many houses, this involved counting the garments (which the women or maids of the family would have marked to avoid them getting lost), making lists etc. The clothes then had to be taken to the river or the laundry in huge sacks or in bundles which were carried either on the workers' backs or on their heads. Laundresses from villages, who collected and washed clothes from nearby cities as a family business of some importance, could at this stage count on the participation of the men, who drove covered carriages and waited in the street while the women went up and down to the flats with the clothes. In any case, transporting the clothes to the place where they were washed sometimes required long journeys carrying extremely heavy loads, particularly in villages.

The washing process had several different phases, which varied greatly. For further information, we can compare two sources: the theoretical description in the *Enciclopedia Espasa* of 1916, and the information provided by the laundresses of a village in Alicante (South East of Spain) who gave a practical description of how this was done until a few decades ago.<sup>7</sup> According to the *Enciclopedia Espasa*, 'washing a large quantity of clothes requires the use of industrial processes'. It is possible to distinguish eight different stages, the first three of which are as follows:

- 1: Separating the different clothes into groups according to how big and how dirty they were.
- 2: Soaking the clothes in running water to dissolve any soluble material.<sup>8</sup>
- 3: Bleaching the clothes, the objective of which was to wash them in alkaline bleach of soda, potassium or vegetable ash at 100 °C degrees in order to dissolve the grease and stains.<sup>9</sup>

The bleaching process, by means of which 'grease was dissolved', was the main operation:

the bleach is prepared in a copper cauldron on a stove, using carbonate of soda and potassium or vegetable ashes dissolved in water [...] the clothes are placed in wooden tubs with a hole near the bottom, endeavouring to place the dirtiest clothes at the bottom and the least dirty at the top. When the bleach boils, it is released through a tap in the bottom of the cauldron, collected in buckets and poured over the clothes in the tub. The alkaline liquid passes through the clothes and goes through the lower orifice to a wooden or iron channel which takes it back to the cauldron, where it is heated once again. Sometimes the bleach is not prepared separately and instead, once the clothes have been placed in the tub they are covered with a piece of closely-woven cloth. The washing salts are then placed on top of this cloth and boiling water is poured over them.<sup>10</sup>

In a home economics manual from the end of the nineteenth-century, the explanation given is somewhat simpler:

The principles on which clothes laundering are based are as follows: the ashes, obtained from burning charcoal, contain the soda and potassium, which when

mixed with water produce bleach. The greasy substances which come from human dirt cannot be dissolved in cold water, but they can be dissolved in boiling water and ashes [...] The normal method for washing clothes consists of placing the dirty clothes in a large bucket and giving them a light wash in cold water. The clothes are then completely covered with a coarse cloth, on top of which the ashes are placed. The bucket has a hole in the bottom to allow the boiling water, which is carefully poured over the ashes, to pass through. When the ashes have fully soaked into the clothes, which can easily be seen by the residue, the clothes are dried and then washed using cold water and hard soap in order to remove the grease which comes from the bleach.<sup>11</sup>

Just like most rural laundresses, the women from Fenollar and Fontcalet, in Alicante, washed the clothes in washtubs in their houses and went to the river or to the washing place, where there was only cold water, to rinse the clothes.

Most of the dirt was removed in these washtubs and the women scrubbed the clothes on flat stones or sinks [...] The water was transported from the wells or irrigation channels in large jugs with the aid of a barrow and at times this work was done by children (until the end of 1975, running water was not available in our area) [...]. A copper cauldron was placed on the stove in the kitchen at home with water, caustic soda and ash. The white clothes, which made up the majority of the washing, were placed next to the cauldron at a slighter higher level. They were placed in a large clay washbowl called a '*cosi*' which had a hole in the lower part of one side, through which a cane was inserted (which had been hollowed out earlier with a red-hot iron) which led to the cauldron. The boiling water was taken out of the cauldron using a ladle and was poured into the *cosi* onto the clothes. The water then went back into the cauldron through the cane. This operation was repeated many times for several hours.<sup>12</sup>

The substances used to remove the grease during the washing process were made of materials of vegetable origin which contained soda or potassium. The properties of plants such as Russian thistle had been well-known for many years and their use in washing clothes explained the fact that this and other types of plants were grown as industrial products.<sup>13</sup> The problem with using them was that, since they had to be used in the form of ash in order to be easily dissolved in water, many of them stained the clothes. This problem was solved by replacing soda ash with soap, whose basic ingredients consisted of oil and soda, which was generally extracted from Russian thistle. Soap had been made from time immemorial, but it was too expensive for washerwomen to use.<sup>14</sup> This explains the interest shown in finding new formulas for making cheaper soap. In the *Semanario de Agricultura y Artes dirigido a los Párrocos* (Weekly Magazine of Agriculture and the Arts for Parish Priests) published in Madrid from 1798 to 1808, various chemical experiments were published which were related to the production of soap. These were common formulas during the nineteenth century in all the treatises and manuals on home economics. In the formulas used by women to make home-made soap (until the 1950s), oil was replaced by any other type of fat, such as the remains of animal and vegetable fat used during cooking. Little by little small producers appeared who specialised in producing soap, which would later be permanently replaced by industrial detergents.<sup>15</sup>

Once the clothes had been bleached, there were still five final stages in the laundering process:

- 4: Soaping, which eliminated the yellow hue of the clothes after bleaching. This yellow tinge came as a result of using bleaches which contained many impurities.<sup>16</sup>
- 5: Exposing the clothes to the sun in the meadows in order to remove any coloured particles which still remained after the previous stages.
- 6: Rinsing, which removed the soluble soap with which the clothes were impregnated.<sup>17</sup>
- 7: Wringing the clothes to remove most of the water in the fabric.
- 8: Draining or sunning, which evaporated the rest of the water and left the clothes perfectly dry.

The clothes could be exposed to the sun up to two times: first, when the clothes were full of soap to increase its effect; and once the clothes had been rinsed, to dry them and whiten them, either horizontally, in the fields, rocks by the river or on bushes, taking care not to dirty the clothes again, or vertically, by hanging the clothes on ropes.<sup>18</sup> Since ancient times, people had been aware of the sun's bleaching properties for preparing and whitening linen. In the book entitled *Vocabulario de refranes y frases proverbiales* by Gonzalo Correas (1627), there are two related proverbs: 'Washed in cloudy conditions, dried with smoke, not washed at all' and 'Water on water neither cures nor cleans'. The author himself explains their meaning: 'Soap and sun are necessary to treat and whiten the cloth and the fabric; they need to be soaked and left in the sun, then soaked again and be left in the sun again'.<sup>19</sup> As early as the nineteenth century, doctors and hygienists confirmed this ancient belief on discovering the antiseptic properties of the sun.

On finishing the washing process carried out at home, the clothes were taken to the washhouse in barrows to be rinsed [...] the women would come to an agreement and go in a group, since the washhouse did not open until all the women were present. The washhouse was privately run; it was probably built at the end of the nineteenth century [...] it is around fifteen metres long and five metres wide with a sloping roof. Inside, the water was contained in three elongated troughs. The first one was used to rinse white washing; the second for coloured washing and the third for the darkest coloured washing [...]. All the women paid a fee for using the washhouse and the amount depended on the quantity of clothes that they took [...]. To whiten the washing even more, indigo or blueing was used, which was dissolved in the water used for the final rinse. A lot of the clothes were starched so that they were 'stiff', in accordance with the fashion of the time. Starch was added to boiling water and then filtered [...].<sup>20</sup>

The tools and utensils that the laundresses used were: water, soap and bleach; paddles or sticks for beating the clothes, bristle brushes for scrubbing, containers for transporting the clothes (wicker or straw baskets), and receptacles used for bleaching (troughs or bowls made of wood or zinc). For the laundresses who washed in rivers, the implements which helped them find

a good position on the river bank were also essential, such as boxes to kneel on and washboards made of corrugated wood so that the washing did not slide off, or tiles. Some washerwomen used barrows or donkeys to get to the river.

### Washerwomen in Rural Areas

Washing clothes was one of the jobs peasant women did as part of their everyday housework (the production of goods and services for household consumption), along with cooking and washing up, cleaning the house, looking after children, fetching water, mending clothes etc. However, it was also a paid job (performed exclusively by women) in large rural towns where there were institutions which contracted out their washing (convents, hospitals, orphanages, prisons) and families which, in addition to having servants and maids working in their houses, contracted out whichever services they required. Of all the factors that conditioned the washerwomen's work, the main one was access to running water. Even in the 1960s, there were still many rural areas in Spain which did not have a main water supply. This explains how collecting and transporting water for various purposes (washing, washing up, cooking, personal hygiene, cleaning the house, giving water to livestock) was one of the most time-consuming tasks, due to the number of times water had to be collected and due to the fact that the springs were often far away, above all in Mediterranean areas of Spain. The women and children, usually girls, were responsible for fetching water, with the exception of that used for watering animals, for which both the women and men were responsible.

Washerwomen from small villages washed in rivers, ponds, pools or springs and often had to travel long distances. The *Diccionario geográfico estadístico de España y Ultramar* published between 1844 and 1849 by Pascual Madoz, contained a great many references to washing places in rural towns and villages. Despite the fact that washhouses had been built in certain large towns and villages, usually in the area where horse troughs were found, in the vast majority of places there was no spring in or near the village. For instance, in the province of Valladolid, two and a half *leguas* (1 *legua* equals 5.55 kilometres) from Medina del Campo, there was a lake called La Lavandera (The Laundress). 'It was round and in winter had a radius of more than 1,500 feet, which was reduced to half that size during the very hot months [...] a lot of bulrushes grows there, there are few fish and the water [...] is only used for doing the washing of the neighbouring villages'. In Liesa, three leagues from Huesca, there was a stream whose 'water is only used for washing'; in Casas de Millán (Cáceres), 'a spring called 'el Chorro Blanco', half a league from the village, is used as a washing place by the women'. In arid Spain, the need for plenty of water for washing meant carrying the clothes large distances to get to the river, lake or well. The village of Lillo, in Toledo, 'takes its drinking water from two wells quite far away, because to all extents and purposes it resembles a village of La Mancha in terms of how dry

the land is and because there are no trees and no water'. In Llano, eight leagues from Valladolid, there is 'a spring which, because it is so far from the village, is only used for washing'.

In addition to washing clothes, rural women also treated linen in rivers and ponds, i.e. prepared the linen for spinning and weaving, and whitened it after weaving. In Cobdar (Almería), 'there is also a small, yet constant stream, which occasionally floods: the women use its water to treat a lot of linen'. There were many other domestic activities, such as washing pots and cooking utensils: in Laluega, three leagues from Barbastro, in Huesca, there were 'various wells which can be used by the inhabitants of the village. One in particular has an abundant supply of good quality water and to draw the water there are steps which go right down to the bottom, where there are two more steps used for washing clothes and pots'.

There were conflicts between the women who used the springs and the men who took their livestock there for watering. In Lagartera (Toledo), 'the [water]of the spring is also adulterated by the women who wash clothes near the spout, which is very near the surface and easily gets soaked in soapy water'. In many cases, the fact that these two uses were incompatible led to the construction of washhouses, which regulated the use of water: in Navas del Madroño (Cáceres), 'there is a large spring half a league from Garrovillas, with a spout which flows into a long trough made of ashlar which is large enough for horses to drink from; this trough flows into another round container where up to forty women at a time can wash'. In Lorca (Murcia): 'There is also another one called Fuente de Oro with seventeen spouts, the water of which is collected in a place where horses from the surrounding area drink. The water then flows into a large covered washhouse, with enough space for up to a hundred women, without needing to enter the water to wash the clothes'.

The design of rural washhouses depended on whether or not it rained a lot, in which case the washhouses were covered. For example, in Azpeitia (Guipúzcoa), 'there is one spring with four spouts [...] a large overflow which supplied water to the washhouse [...] the place set aside for the washerwomen is covered by a tiled roof supported by stone columns'; in Ledanca, seven leagues from Guadalajara, there was not only 'a spring providing good quality water from four spouts', but also 'a good washhouse with a roof'.<sup>21</sup> Covered washhouses were the first technological revolution of washing and changed the way in which washing was done. They completely changed the working posture of the washerwomen, who worked upright instead of kneeling down and bending over the river bank. Since they no longer had to wade into the river to rinse the clothes in deeper water, to a large extent they avoided getting soaked during the washing process, which also meant that they avoided many of the illnesses caused by constantly being wet. Although washhouses were not built with the comfort of the washerwomen in mind, but rather to regulate the use of water and even, as we shall see later, due to reasons of public morality, they did represent an extremely important improvement in washerwomen's working conditions.

### The Transition: Rural Washerwomen Who Did Washing from the Cities

At least from the eighteenth century onwards, the washing of middle- and upper-class families from cities all around Europe was done by women from nearby villages. In France, laundresses from Fresnes did the washing of Paris and women from Craponne did the washing of Lyon. In Spain, at least from the eighteenth century onwards, there were villages whose womenfolk did this job and these villages grew as a result of the laundry business. The authors of Madoz's *Diccionario* bore witness to this activity in four cities, three of which were in the north: León, El Ferrol and Oviedo followed exactly the same pattern, with washerwomen travelling to the towns either on foot or on horseback, together with other men and women who sold other goods and services in the city. The washing of people who lived in León was done in Ferral, one league away. 'The inhabitants, and in particular the women, did the washing of the capital. They made regular money from this, as they did from selling milk from their cows and goats'. In El Ferrol, in the province of La Coruña, washing was done by women from Santa Marina de Sillobre. 'Some women bake bread and others wash clothes from Ferrol, where, as in the capital of the region (Pontedeume), they sell bread'. In Oviedo, the washerwomen came from Santa María del Naranco: 'in addition to agriculture, which is done by men, the proximity of the city of Oviedo encourages the women to work as washerwomen and bakers'.<sup>22</sup>

The fourth town mentioned in the *Diccionario* as a washing town was San Ginés de Agudells de Horta, which is nowadays the Horta neighbourhood of Barcelona. This town's industry consisted of 'a bakery which supplied the village and also served a lot of orders to Barcelona, tanning factories, factories making glue, cotton and linen fabric. However, the most productive activity is washing the clothes of a large number of inhabitants of the capital, a job which is done by women'.<sup>23</sup>

In other cities, washing clothes was also the specialisation of women from nearby villages. A century earlier, in Madrid,

Of the 180 inhabitants of Hortaleza and Canillas in the mid-eighteenth century, no fewer than one hundred worked in the local 'industry': the women washed the dirty washing of the Court and the men fetched and carried it with the help of 131 horses and donkeys (115 of these were small donkeys). However, since the aforementioned villages were part of the manor, each washerwoman had to pay the lord 40 reals (4 reals equal 1 peseta) to use the washhouse.<sup>24</sup>

In the city of Santander, the women of Cueto and Marina went to collect the washing, but women from villages much further away also worked as washerwomen for inhabitants of the city.<sup>25</sup> Women from La Canyada del Fenollar and Fontcalent did the washing for the city of Alicante and their story has recently been reconstructed orally:

They went to Alicante every Monday in carts which were usually driven by the women themselves [...] the washerwomen came together in groups around the

carts and those who could pay more travelled on the carts and those who could not walked alongside and only paid a small amount for transporting the washing on the return journey; some women even walked back with their baskets on their heads to save a few cents [...]. Some made the most of the journey and took eggs to sell, or farmyard animals that people had asked for. The carts were covered with a tarpaulin [...]. The first stop was at a bakery in Los Angeles, on the road leading into Alicante. There, they bought loaves of fresh bread [...]. The second and final stop was at an inn [...] in front of what is now the main market of Alicante and there, they ate the bread with cold meat or something savoury [...] they went to the houses of their various customers to collect the dirty washing [...]. The washing was returned to its owners the following Friday and the women organised the trip in the same way as they organised the collection [...]. To deliver the washing, they carried baskets on their heads, placed on pads made of cloth which they made themselves...The washerwomen were paid when they delivered the clean washing and until the 1940s, it cost 1 real (25 cents) per item [...]. The customers themselves brought new customers by word of mouth [and] at times they requested [their] help to do certain household tasks, such as helping to prepare special meals. Such work represented a small increase in their normal income.<sup>26</sup>

In coastal areas near ports, peasant women did the washing for ships as well as for people in the cities. The washhouse in the parish of Jove, near the port of El Musel in Gijón, was used until recently: 'Until not so many years ago, all the women of the area washed there and some of them did the washing for the ships docked in the port. In order to finish their work on time, it was not unusual to see women washing during the night'.<sup>27</sup>

### City Laundresses

Just like in rural areas, in the cities there were three different situations in which women washed clothes: (1) women who did the washing of their family as part of their housework; (2) maids who did the washing, along with other paid housework, for the family they worked for; and (3) professional laundresses, who collected and delivered the washing of families or institutions every week. These three types of laundresses sometimes came together in public laundries, whereas only maids or women who washed for their families worked in private laundries (in the houses). What made the situation of these laundresses different was the fact that their job was a fully recognised trade and in small towns the laundries themselves were no longer simply municipal buildings which could be used for free.<sup>28</sup> The eagerness of town councils to obtain income from taxes and fees and to fund water channelling projects increasingly led them to rent out the washhouses to private companies, which in turn charged for their use. Finally, there were privately constructed and privately managed laundries.

Private laundries existed alongside public laundries, which were both publicly and privately managed, in almost all cities. For the city of Granada, Madoz's *Diccionario* makes reference to public laundries:

The only one which merits such a name is the one at Fuente Nueva, next to the Triunfo, covered in 1843 with a gallery to provide shelter for the women who go there. Since almost all the houses have a supply of water; because water channels run all through the city and since the two rivers Genil and Darro are so close; public laundries are not urgently required by the inhabitants. However, in addition to this laundry at Fuente Nueva, there are other private laundries: there is Zafra, Las Tablas, Carrera del Darro, where there are remnants of some magnificent Arabic baths, Genil and Méndez. The most popular of these, except for the rivers, are the ones at Fuente Nueva and Las Tablas.

In the city of Jaén, no mention is made of private laundries:

an excellent supply of water is provided by various streams [...] at the exit of Sta. Ana [...] when there is a surplus, water overflows into an open laundry situated along the road where women from the neighbouring areas come to do their washing [...] [the poplars] on the promenade are enormous and provide shade and shelter for the washerwomen who meet in great numbers.

In Valladolid:

there are four public laundries. Three of these use spring water and the other takes water from the River Esgueva, situated in the centre of the town. The others are also within the city walls. They are leased to a single contractor for 1,550 reals per year. In addition, there are three private laundries, which also use spring water. Two of these are situated outside the town and one inside.<sup>29</sup>

In Madrid, washing in the river was controlled and privatised from the mid-eighteenth century onwards by means of business deals which eventually led to the creation of small companies.<sup>30</sup> In 1749, the town council, which from time immemorial had charged a fee for use of the water and for access to the river banks, reorganised this service, buying the places from those who had obtained rights through use and leasing them out on a yearly basis. Thus, a new type of municipal tax was created called 'laundries, washing places and bathing', described in the municipal Tax Office as simply the 'wash bench sector' in reference to the wooden boxes the washerwomen used to kneel on. In 1750, 'on the river bank from Nuestra Señora del Puerto to La Huerta de los Cipreses' there were 1,142 standard washing places and 24 small washing places, 'with their respective washing lines'. Of these, 1,068 standard washing places and 24 small washing places obtained licences on contracting the lease by deed. They had to pay 'the amount for one month, a third of a year or half a year in advance, by means of a deposit'. However, not all the licenses actually had to be paid for: there were only 586 'paid washing places at two maradevis each per day', while the licences for 482 washing places 'were granted for free because of reasons contained in the deeds'. In addition, there were 'seventy-four washing places whose licences were given free of charge to various poor people who had very little to eat'.<sup>31</sup>

In 1753, 887 washing places leased to 27 tenants were listed by the sector's administrator in the accounts presented to the Treasury of the town

council; each of them 'has a place leased to them on the aforementioned River Bank for Washing Clothes, for one year', washing places whose cost, 'at 2 mrs. each per day, minus 75 days' holiday, comes to a yearly total of' an amount of reals and maravedís (34 maravedís equal 1 real) which the leaseholder had to pay to the city council monthly ('one month in advance') or biannually, as stated in the leasing contract which each of them signed before a notary.<sup>32</sup>

**Table 3.1** *Leaseholders With Washing Places Along the River Manzanares. Madrid, 1753 (in reals 'r' and maravedís 'm')*

Leaseholders	Washing Places	Annual cost	Monthly Instalment Payable
1. Antonio Sánchez	139	2,371 r	1,188 r 17 m (6 months)
2. Juan López	68	1,160 r	96 r 22 m
3. Joseph López	48	939 r 28 m	469 r 14 m (6 months)
4. Francisco García del Carril	40	682 r	56 r 11 m
5. Ángel Pérez	40	682 r 12 m	341 r 6 m (6 months)
<b>6. Manuela Fernández</b>	<b>40</b>	<b>682 r</b>	<b>341 r (6 months)</b>
7. Manuel González Agüero	38	648 r 8 m	324 r 4 m (6 months)
8. Pedro Martínez	37	631 r 6 m	315 r 22 m (6 months)
9. Francisco de Medicis	36	614 r	51 r
10. Juan Jadracue	35	597 r	49 r 26 m
11. Francisco de la Vega	30	511 r 26 m	42 r 22 m
<b>12. Manuela Fernández</b>	<b>30</b>	<b>511 r 26 m</b>	<b>255 r 30 m (6 months)</b>
13. Juan Díaz de Andrade	30	511 r 26 m	255 r 30 m (6 months)
14. Antonio Díaz de Andrada	30	511 r	42 r 17 m
15. Feliz Fernández	24	409 r 14 m	204 r 24 m (6 months)
16. Antonio García	24	409 r 14 m	34 r 2 m
17. Ignacio Morera	24	409 r 14 m	204 r 24 m (6 months)
<b>18. Juana Lucatona</b>	<b>22</b>	<b>375 r</b>	<b>31 r 8 m</b>
19. Juan Antonio López	22	375 r	31 r 8 m
20. Alphonso Cabo	20	341 r	170 r 17 m (6 months)
21. Alonso Terradas	20	341 r 6 m	28 r 14 m
<b>22. Manuela Herrero</b>	<b>19</b>	<b>342 r</b>	<b>162 r (6 months)</b>
<b>23. Feliciano Fernández</b>	<b>18</b>	<b>300 r</b>	<b>25 r</b>
24. Ignacio Taboada	15	255 r 30 m	21 r 12 m
25. Antonio García	13	222 r	18 r 17 m
<b>26. Sebastiana Rodríguez</b>	<b>13</b>	<b>222 r</b>	<b>18 r 17 m</b>
27. Juan de Lemus	12	204 r 24 m	102 r 12 m (6 months)

Table 3.1 shows that in the River Manzanares in Madrid, there were 887 washing places leased by the city council to private individuals, which were occupied every working day of the year (calculated to be around 290 days) and for which they paid the city council 1 *real*, 40 *maravedís* per place per month. There were 27 leaseholders, which meant that the business was in relatively few hands. There were 10 leaseholders who had more than the average number of washing places (33 places per leaseholder) and one with 16 percent of all the washing places. Among the 27 leaseholders, there were only 7 women (26 percent of the total), who leased 142 washing places

between them, or 16 percent of the total number of places. This meant that despite the fact that all the workers were women, and that some of them managed to become leaseholders and sign contracts with the city council, they only controlled a very small percentage of the business. Men, on the other hand, who did not work in the laundry trade, became 'businessmen' in the sector, probably due to the fact that they had the necessary relations and contacts to get the contracts and above all because they had the capital to pay the deposit on the lease. This situation became more pronounced as time went by because the amount of capital available increased the differences between the laundries. The leaseholders who built huts where the washing could be dried on rainy days and where the women could eat and organise the washing, those who bought soap and bleach in large amounts to sell to the washerwomen etc., attracted more laundresses and therefore obtained higher profits.

Until the mid-nineteenth century, it would appear that the centre of the Madrid laundry industry was still based around the River Manzanares: 'Despite its lack of water, this river is of great use to Madrid to fertilise a large part of its municipal area, for washing clothes, for general bathing in summer and to supply the canal [...]. Its water is fine and of good quality, but it is not fit for drinking because it is used for washing'.<sup>33</sup> A few years after this statement by Mesonero Romanos, it was confirmed that, despite water shortages,

[the River Manzanares] is of great use to Madrid since it is used as a general washing place, for dyeing, for tanning, for endless bathing in summer and many other uses. The course of the river is about 10 leagues and black poplars and other bushes grow on both banks, providing shade and a somewhat pleasant atmosphere. There are also a great many small cabins which washerwomen use to keep the washing and for other uses [...], especially on the left bank, there are various cabins used as accommodation for the leaseholders of the laundries and as shops selling food and wine. This is the last part of the picturesque river banks of the River Manzanares, which begin before the Toledo Bridge with vast amounts of washing blowing in the wind, hanging on washing lines erected with ropes and posts. All along this section of the river there are various islets, on most of which, like on the rest of the banks, there are vast numbers of women doing the awful, incomparable task of washing: for that reason there is a great deal of activity in this place at all times.<sup>34</sup>

Practically every traveller and writer who passed through Madrid during the nineteenth century described this scene because the River Manzanares, to the south of the city, had to be crossed on the way to La Mancha and Andalusia and was close to the royal palace. In addition, the sight of these hundreds of women bent over the banks of the river and of the washing hung out to dry in the sun was 'picturesque', the type of impression that the romantic writers were in search of.<sup>35</sup> Baron Charles Davillier, travelling in Madrid in the early 1860s, thus described the 'water nymphs of the River Manzanares':

sturdy Galician women, whom one often meets when going up or down the Cuesta de la Vega balancing an enormous bundle of white clothes on their heads and another under each arm. These washerwomen dig holes in the sand, in which they retain as much water as they can from the river's miserly flow. These washerwomen occupy great stretches, from the Toledo Bridge to the bridge at the Casa de Campo, of the River Manzanares, which splits into various irrigation channels and is metamorphosed into soapy water. The riverbed accommodates many cane huts which are used to protect the washerwomen from the sun's rays. There are also long parallel rows of poles on which the underwear of Madrid is hung out to dry.<sup>36</sup>

In 1842, there were 75 laundries among the 'industrial and commercial establishments of each of the neighbourhoods on the outskirts of this city'.<sup>37</sup> Two decades later, in 1863, Barcelona had 45 laundries and this number increased to 82 in 1896, in addition to 64 laundries in the surrounding villages.<sup>38</sup> The leasing or property of laundries must have been considered a business with good prospects because in 1846, there was an attempt to form a shareholding company entitled *Compañía de baños y lavaderos públicos de Madrid* (The Public Bathing and Laundry Company of Madrid), with a nominal capital of 12 million reals. The following year, in 1847, another company, *El Armiño*, was formed with a capital of 8 million reals. Its objective was to 'set up public laundries'.<sup>39</sup> However, just like other companies at that time, they were unable to raise such amounts of capital.

The growing number of laundries in the cities was due to the increased demand for their services, not only from individual customers, but also from institutions, particularly hospitals and prisons. Other institutions organised their own laundry services and the work was done by their own staff or by inmates. Since many of the welfare institutions were segregated, they were some of the only places where we can find examples of men working as launderers prior to the appearance of industrial laundries in the twentieth century.

Towards the middle of the nineteenth century, there were three main hospitals in Madrid and various shelters and hospices. The Hospital General de Atocha, with 1,526 beds, had 369 employees, with '2 launderers in charge of doing the washing' and 5 assistant launderers. The Hospital de San Juan de Dios, with 253 beds, made no mention of laundresses among its 19 employees, whereas the Hospital de Incurables de Jesús Nazareño, founded by Carlos IV in 1803, with 109 beds in 1847, had 'three washerwomen taken in from the first-aid post'. There was also the Hospice of San Fernando, which provided accommodation for 453 poor women and 117 girls. Work was found for them in the workshops (doing knitting, making gloves, embroidering, removing burls from wool and thread etc.), as servants in private residences (there were 42 in 1846) or as we have seen, as washerwomen in hospitals.<sup>40</sup>

Unlike the hospitals, many hospices and shelters, especially those for women, did not contract washerwomen. Since forced labour was the preferred means by which the poor were supposed to be taught a sense of morality, the washing was done by the women staying there. In the *Inclusa* y Colegio de la Paz in Mesón de Paredes street, which was run by the religious

order the *Hermanas de la Caridad*, there was a laundry where one nun worked 'with four women to assist her, who were each given one real extra' in addition to a monthly salary of 60 reals, food and 'soap to do the washing'. In the Colegio de Niñas de la Paz, which took in abandoned girls after they had left the *Inclusa* at the age of seven, there were 145 girls in 1846 and it was also run by the *Hermanas de la Caridad*: 'so that they can learn the financial administration of a home. Since they are not allowed, unlike in the past, to go into service to do this, every week they take turns working in the kitchen, the laundry, cleaning the house, warehouse and infirmary, with 12 girls doing each of these tasks every day'. In neither of these two poorhouses was washing included in their expenses and this was done by the residents. However, the Colegio de Desamparados, which took in children from the *Inclusa* from seven to thirteen years old and which had 276 children in 1846, did not have any washerwomen among its staff (although one woman was in charge of the clothes and there were four seamstresses) and it may well have contracted outside laundries to wash the residents' and the workers' clothes: 'the interns, the inspector, the four security guards, the verger, the organist, the orderly, the kitchen hands and the porter are entitled to food and clean washing'. In other words, food and washing their clothes were considered part of the wage they received.

### The Living and Working Conditions of Washerwomen

Washing clothes is without doubt the most awful job for a woman. It is done outside in all weathers, it requires considerable effort, there are fixed deadlines and it is related to a large number of illnesses due to the effect of the water, which goes up to their knees, due to their posture because they spend all day bent over, and due to the risk of catching infections if the clothes come from patients with infectious diseases.<sup>41</sup>

Work has finished on a public abattoir and a public laundry which shall be inaugurated today and whose importance should not be overestimated [...]. The inauguration of these buildings brings great satisfaction at having performed an important duty which could be postponed no longer; namely that of providing this city with a washing place to end the living hell endured by the women of Utiel.<sup>42</sup>

Before it was mechanised, washing was one of the most terrible jobs and all the testimonies of the time state the same reasons for this. The washerwomen spent practically their entire long working hours soaking wet, which caused broncho-pulmonary illnesses (ranging from colds to pneumonia, rheumatism and bronchitis) and skin complaints: their hands were raw, chapped and often bled, and the constant cold and damp caused chilblains.<sup>43</sup> What is more, washerwomen worked outside in summer and also in winter when the water was freezing cold. This was unavoidable as washing also had to be done during the winter months and because in many parts of Spain water was only available in large quantities during the wettest and coldest

seasons.<sup>44</sup> Also, a considerable part of the washerwomen's work involved moving and carrying the washing, firstly when it was dirty and afterwards when it was clean. The enormous weight of soaking wet sheets, blankets, bedspreads and towels (which weighed four times their dry weight) which had to be repeatedly submerged in water, soaped, wrung dry and hung out, made this, alongside farm work, the most physically demanding job done by women.

Unlike jobs carried out by men, the fact that washerwomen's work was extremely hard did not mean that they were better paid or that society valued their work more highly. On the contrary, doing a job which required great physical effort was a social handicap because it was not compatible with the reserve, modesty and fragility attributed by society of the female sex.<sup>45</sup> In many rural areas, the municipal by-laws prohibited women from washing in the village springs, not only because these were reserved for watering animals, but also to avoid the supposedly immoral spectacle of seeing women with their clothes pulled up above their knees or with bare arms. This was even one of the reasons for building laundries, which were closed places where the women could work without losing their composure. According to the informant of Madoz's *Diccionario*, in Loja (Granada), 'Despite the fact that there is abundant, good quality water in this area, and that there are many textile mills, Loja lacks washing places to wash wool and general white washing. In order to do this job, the women have to go to the streams, which is detrimental to their health as well as their decency'.<sup>46</sup>

In the Cordovan village of Rute, of the forty-seven fines imposed by the Mayor in 1851, 1852 and 1853, fourteen were given to women and five of these were for doing washing: Josefa de Campos was fined 2 reals 'for being found doing the washing in the animals' drinking trough, which is a direct infringement of the law regarding this matter' (18 January 1852); Antonia León was fined 2 reals 'because her daughter was found doing the washing with her petticoat hitched up, thus infringing the law on this matter' (18 January 1852); María Royo was fined 2 reals 'because her daughter was found doing the washing in the basin of the El Moral fountain' (4 July 1852); Juana María Sánchez Cubero was fined 8 reals 'for washing in the fountain called El Moral' (11 July 1852); and on the following day 'Josefa García was given a fine of 80 reals for washing in the El Moral fountain, and since she was insolvent, on the very same day she was sent to prison for 4 days instead' (12 July 1852). This extremely heavy fine (the others ranged between 2 and 10 reals) was one of only two which were replaced with a prison sentence and puts Josefa García on the same level as Telesforo Herrero, who was also given a fine of 80 reals 'for wandering around and causing a commotion late at night' (21 July 1852).<sup>47</sup>

The money to pay these fines and all the expenses related to their work (soap, bleach, firewood, shovels and washbowls and the rent to pay for the laundry in the cities) had to be taken from washerwomen's extremely low salaries. These salaries were totally unrelated to the physical effort or the difficulty of the job, and were mainly determined by what was considered to

be a 'day's pay for a woman'. It is very difficult to calculate washerwomen's salaries because they were paid per item of washing and even if the rate for each item were known, it is impossible to know how many customers they may have had, the amount of washing each customer gave them, and whether or not they charged the going rate.<sup>48</sup> However, in 1884, seven representatives of workers from Valencia informed the Commission for Social Reforms that the 'estimated expenses of a single worker' amounted to 12 pesetas 32 centimes per week.<sup>49</sup> Of this sum, 8.40 was spent on food, 1.31 on accommodation, 0.35 on taxes, 1.17 on tobacco, leisure and entertainment and 1.09 on personal hygiene, which included washing and ironing (Table 3.2).

Table 3.2 *Weekly Personal Hygiene Expenses of a Single Male Worker, Valencia 1884*

Service	Item	Price (pesetas)
Washing	One shirt	0.12
	One vest	0.09
	One pair of underpants	0.09
	One pair of socks	0.03
	One neckerchief	0.03
	One sheet	0.18
	One towel	0.06
Ironing	One shirt (badly ironed)	0.12
Cleaning the room		0.12
Shaving		0.25

Source: RS, vol. III, 463-7.

It cost this 'single worker' 60 centimes per week to have his washing done, half of what he spent on 'tobacco, leisure and entertainment' (which was a very conservative estimate given the fact that it did not include a single glass of wine in a tavern).<sup>50</sup> How many items would a washerwoman have to wash each week to earn what the Commission for Social Reforms calculated to be the minimum expenses (12.32 pesetas) of a worker? It should also be taken into account that from however much they earned, washerwomen had to deduct what they spent on soap, bleach, fuel to heat the water and whatever they paid the owner of the washing place.

Despite the terrible rate of pay, the money earned from washing was probably of fundamental importance to the washerwomen's families. In 1886, Enrique Naranjo de la Garza, chief engineer of the mines in Linares (Jaén), was requested by the Commission for Social Reforms to report on the miners' living conditions. When asked question XIV about 'Women's Work', he replied: 'Workers' wives also do washing, because since there is a large number of workers, there is a lot of washing to be done; they also do washing and ironing for the well-to-do houses and earn between 1 *peseta* and 1.50 pesetas a full day's work'.<sup>51</sup>

This income was even more important when it was the family's only source of income and since washing was one of the only jobs that women could do, it allowed thousands of women to survive and support their families. The best

description of the working and living conditions of the washerwomen of the River Manzanares comes from Arturo Barea, whose novel entitled *La forja de un rebelde*, published during his exile in 1944, describes the working classes of Madrid in the early twentieth century through the eyes of a washerwoman who supports her family thanks to her hard, badly paid job:

When my father died, we were four brothers and sisters and I was two months old. They advised my mother (from what I've been told) to send us to the Inclusa, because she wasn't going to be able to get by with all four of us. My mother went off to the river to wash clothes [...] on the days when she isn't washing in the river she works as a maid in our uncle and aunt's house and she cooks, washes up and does the washing for them [...]. Now that it's summer and I don't have school [...] I go to spend the day in the country with her. When my mother has finished collecting the washing, we go home along the Cuesta de la Vega [...] the sack that Mr Manuel carries [...] is a very big sack, bigger than a man. Since I count the washing with my mother I know how much it can hold: 20 sheets, 6 tablecloths, 15 shirts, 12 nightshirts, 10 pairs of underpants, well, loads of things.<sup>52</sup>

Barea's novel described the washerwomen's work as an activity which required the women to cooperate and which also involved children, just like all the jobs done by women. Either the washerwomen had to take care of the children while they worked or the children looked after each other and when they were a little older they could help their mothers:

The two hundred pairs of trousers are blowing in the wind ... We children run between the rows of white trousers ... Mrs Encarna runs after us with the wooden shovel that she beats the washing with to wring out the grease. We hide in the maze of alleyways made by four hundred wet sheets ... In the afternoon, when the trousers are dry, we help to count and separate them into piles of ten until all two hundred are finished. We gather together with Mrs Encarna on the top floor of the laundry. It is a building with a sloping roof. Mrs Encarna carefully walks among all the feet and almost hits her bun on the main beam ... Next to Mrs Encarna are the piles of trousers, sheets, underwear and shirts. The pillowcases are at the far end. Each item has a number and Mrs Encarna counts them and throws them to the child in charge of that particular dozen. Each of us has two or three piles by our sides, where there are 'twenties' or 'thirties' or 'sixties'. We place each piece of clothing on its respective pile. Afterwards, we put a pair of trousers, two sheets, a pair of underpants and a shirt which all have the same number, into a pillowcase, as if it were a sack. On Thursdays the big cart comes down with four horses and it loads the two hundred sacks of clean washing and leaves another two hundred sacks of dirty washing. This is the kit belonging to the soldiers from the Royal Guard, the only soldiers who have sheets to sleep on.<sup>53</sup>

Washerwomen's problems with regard to looking after their children while they were working led to the establishment of the Casa-Asilo de Lavanderas de Madrid. This was a proposal made by Queen María Victoria, the wife of King Amadeo de Saboya (1871–1873), who inaugurated the construction

work in June, 1871. According to the press reports, 'the grateful washerwomen expressed their deepest, most affectionate respect for the king and queen'.<sup>54</sup> Situated next to the Puerta de San Vicente, close to the River Manzanares, the Casa-Asilo de Lavanderas was protected and visited by future queens. Run by the *Hermanas de la Caridad*, it was considered to be a model institution in 1901, when it accommodated 400 children, 'whose mothers spend the whole year working and suffering the rigours of the cold and the heat, but happy in the knowledge that their little ones are being looked after better than in their own homes'.<sup>55</sup>

## Industrial Laundries

As we have seen, the first major technical transformation of the washing process came about as a result of the modest village washhouses which, in addition to providing shelter, provided the washerwomen with a large container and a supply of running water and allowed them to do the washing standing up, without having to wade into the river or kneel down on the riverbank. Paradoxically, such buildings were constructed and were more common in large villages than in many cities. This was due to the fact that whereas in the former it was possible to take advantage of a fountain or spring, in the cities the water had to be channelled. In addition, the fact that traditionally there were washhouses on the river banks meant that this industry took a long time to become established. This explains why during the years that Madoz's *Diccionario* was published (during the 1840s), various provincial capitals still included the construction of a covered washing place among the planned improvements of the town. Such was the case, for example, in Burgos: '*Improvements*. The town council of Burgos plans the following improvements: [...] the construction of a covered washhouse which should be located behind the new theatre and to the right of the River Arlanzón'.<sup>56</sup>

One of the factors which greatly affected the washerwomen's working conditions (the duration and laboriousness of the washing process, the risk of catching illnesses, even the day's wages and whether or not there was work at all) was their access to water. Whether or not rural washerwomen could do the washing next to their homes or whether they had to travel large distances carrying the washing depended on how close they were to a water supply. They were also able to get customers in cities as long as these had no running water and there were thus no covered washhouses. The transformation took place in two stages: the first was the initial step towards providing an urban water supply, which still did not reach every house but reached most neighbourhoods by means of fountains.<sup>57</sup> The covered washhouses were buildings of one or more floors with various rooms: there was the room used for washing, with rows of sinks, each with its own tap; the room for hanging up the washing on an upper floor, and a drying room, with a system of hot air to dry the washing when the weather was bad. A picture taken by the photographer Alfonso in the 1920s shows the washhouse in the Galileo street

in Madrid, and is a perfect reflection of the changes in the washing process and in washerwomen's work. In his novel, Arturo Barea also speaks of the changes brought about by covered washing places and the sense of factory life that was then prevalent: closed in, smelly, full of steam, with the washerwomen crammed into narrow spaces.

Señora Paca [...] is also a washerwoman, but she doesn't go to Granizo's washhouse, she goes to one which is on the road to Atocha, where there isn't a river and where they do the washing in sinks made of cement which they fill with water from a tap. I've been there once and I didn't like it. It looked like a factory with all the sinks full of washing with steam rising from them and the women crammed together, shouting like crazy. And there was no sun and no grass and the washing stank. The drying room, where there are lines to hang up the washing, is in an area behind the sinks. The naughty kids jump over the fence and steal the washing. Of course they steal washing from the river, too, but since it's in the countryside they're frightened because the women run after them and they always catch them. By the river, opposite the Casa de Campo, there are decent washerwomen, but down from the Puente de Toledo and in the washhouses of the Rondas, the washerwomen are all crude and vulgar.<sup>58</sup>

Although we have seen that in the mid-eighteenth century the town council of Madrid assigned a considerable number of washing places on the River Manzanares to poor people, in the nineteenth century, it would appear that almost all the places had been privatised. Washing places which were open to the public were privately run businesses in almost every city. This meant that even the poorest women had to pay to do their washing (even those who only did the washing for their own family), which increased the workers' cost of living and decreased standards of hygiene. Condemned first of all by doctors and hygienists and later by workers' organisations, in 1853 the lack of free washing places led the government minister Pedro Egaña to enact a decree by means of which the Charity Authorities set up a *Washhouse and Public Baths for Poor People* and by means of which a commission was set up to study the project.<sup>59</sup> In Barcelona, the Tenants' Union, which was founded in 1918, continued to request that 'the Town Council sets up free public washing places in each neighbourhood, equipped with the latest advances for all workers to use'. The poor hygienic conditions of these establishments also led many people to consider washing as a public service. The municipal architect Rovira y Trías classed certain laundry owners as 'public health speculators who spend their time searching for premises in the old part of town in which to set up these filthy, foul-smelling places which they call public laundries'. In spite of all these criticisms, washing continued to be a private service.<sup>60</sup>

These industrial laundries were owned by a different type of 'businessman' than the leaseholders who administered the washing places along the banks of the River Manzanares in the mid-eighteenth century and they had different types of problems. In Madrid, the *Association of Owners and Tenants of Closed Laundries of Madrid* was set up in 1911.<sup>61</sup> Its articles of association illustrate the two main reasons for creating the association: the first was that of

avoiding price competition among the businessmen by setting a fixed price, 'bearing in mind the special situation of each laundry, its capacity and any other conditions', which all members were obliged to observe. This fee did not only refer to renting out the sinks used for washing, but also the other services that they offered the washerwomen, such as the sale of bleach and soap: 'Buckets of bleach must not be sold for less than five centimes each'.<sup>62</sup>

The second objective was to ensure that the washerwomen paid, checking up on them by means of 'a document certifying that they were up to date with payments due to the owner or tenant of the laundry' and obliging all its members 'not to admit any washerwoman who does not present this document'. In addition, members were forbidden from allowing 'their assistants to wash in the sinks assigned to their employers without paying the price stipulated for using a sink' and were obliged to 'keep a register of the washerwomen who washed in each of the laundries including details of their name, surname and address. The Secretary of the Association must be notified if a new washerwoman registers in the laundry or if any of the washerwomen leave'. At least in large cities, in the early twentieth century there were already enough laundries for there to be a certain degree of competition (and enough for the businessmen to radically oppose it) and for their clients, the washerwomen, to try and benefit from it.

### The Mechanisation of the Washing Process and the Disappearance of a Profession: Washing as Part of Housework

Washing as a profession began to disappear in the mid-1950s, when washing machines appeared on the Spanish market. The first people to buy them were those with the highest incomes, amongst whom were many of our older relatives' and neighbours' customers.

M.J. Pastor, *Lavanderas y canteros*, p. 51.

When running water arrived in people's homes, the washing process underwent a complete transformation and it was no longer necessary to have the washing done by a washerwoman who took the clothes away. The washing was done at home, by maids or by a washerwoman who specifically went to the house to do the washing once or twice per week.<sup>63</sup> The advantages of doing the washing at home were a greater degree of control over the clothes and less damage because the owner of the house supervised and decided how the washing should be done.<sup>64</sup> The houses of the bourgeoisie were designed to include washing rooms, with sinks and washing lines. In wet regions, the washing lines were situated on the roof of the building and were for the communal use of the neighbours. In sunny regions, the washing lines were situated on the outer windows, with ropes that sometimes even went from one side of the narrow streets to the other.

This process of converting the washing process into a household task prepared the way for its mechanisation, the last phase of the historical transformation of the washing industry. In fact, mechanisation is only one of

two transformations which the washing industry underwent. Technological innovation also had an effect on the soaps and bleaches, which were the basic raw materials used in the washing process. Advances in chemistry led to the patenting and marketing of industrial detergents which could remove dirt and grease much more easily and made the washing process a lot simpler. This meant that washing no longer had to be bleached and that it could be done in cold water.

Each phase of the mechanisation of the washing process took place independently, that is to say that different innovations changed the soaping, the washing, the rinsing and the drying. The patents were adaptations of the machines used in industrial laundries, which initially used the technique of steam washing. In Madrid, at least, the first attempts to set up industrial steam laundries must have been towards 1835 or 1840, because in 1843, press reports stated that:

Steam, that ever-present feature of modern civilisation, the marvellous, universal power behind the most innovative industry [...] not long ago threatened the age-old laundry industry with a painful, sudden death [...]. One single machine, operated by few pairs of hands, was going to leave uncountable living machines without bread and wine. One company [...] was going to monopolise public decency and neither the seamstresses nor the ironers would have been saved from the impending cataclysm; the manufacturers of steam cleaners promised [...] to change the dirty, worn-out clothes of the people of Madrid into clothes that could be whitened in no time at all and mended and ironed as if by magic [...]. Luckily for the registered washerwomen, either the businessmen feared that the women would openly rise up against them in desperation, as heralded by certain alarming indications, or the first trials of the new system did not match the expectations of the public or even the company itself. Either that, or, as would appear to be the case, the essence of routine has prevailed in this issue'.<sup>65</sup>

However, the real washing revolution came about as a result of the development of the washing machine for domestic use, not industrial use, which made sense once houses had a supply of running water. The first 'washing machines' were simple wooden drums whose insides were lined with copper or zinc and which were moved manually by turning a handle. Later on, an inlet supplied clean water and an outlet removed the dirty water. It was not long before internal blades were added. These were wooden paddles which beat the washing but they proved unpopular because the paddles often got stuck in the washing and damaged it. Electric washing machines, which were the same drums powered by a small electric motor, represented the final stage in the washing revolution. Towards 1912, all U.S. manufacturers and various European manufacturers were making electric models for household use, although one million washing machines were not sold in the U.S.A. until after the First World War. Manufacturers stopped using wood and replaced this with metal, first copper, galvanised steel, aluminium and zinc. Towards 1961, they had been replaced by porcelain, which was resistant to high temperatures and the chemical elements of the

detergents. The drum was powered by a one-quarter horsepower motor and the washing action was produced by rotation by means of an internal stirring rod.

Depending on the type of device used to move the washing, washing machines were classed as either drum or turbine machines. Turbine machines had a tank and a rubber propeller situated at the bottom. The simple electronic system had three semiautomatic functions (the programmer had to be set manually): pre-wash, wash and rinse. The rotating propeller moved the water and the washing. Only the time and the temperature were controlled automatically. In automatic drum washing machines, the electronic control mechanism adjusted the washing process by means of various coded wash programmes. The drum, which had holes in it and which was connected to a motor, wrung out the clothes by spin-drying. The programmes had various functions, lengths, temperatures and drum speeds.

The operation of automatic washing machines goes in cycles which reproduce the phases of the washing process which had for centuries been carried out by washerwomen: the washing is soaked, the clothes are washed and alternately rinsed and washed again, and finally they are spun dry, which is the same as wringing out the washing by hand. The whole process ends with the use of a clothes dryer, which uses heat to dry the washing after it has been washed and spun. The mass marketing of automatic washing machines, one of the signs of the modern home which was extolled as a symbol of Western prosperity from the 1920s, represented the disappearance of professional washerwomen who did other people's washing in exchange for a day's wage. Nowadays, washing is one of the household chores of 'housewives' who specialise in performing such services free for their families.

## Notes

1. P. Malcolmson, *English Laundresses. A Social History, 1850-1930*, Urbana, 1986; A.P. Mohun, *Steam Laundries. Gender, Technology and Work in the United States and Great Britain, 1880-1940*, Baltimore, 1999; and B. Orland, *Wäsche waschen, Technik und Sozialgeschichte der häuslichen Wäschepflege*, Reinbek, 1991.
2. For example, in France the Ecomusée de Fresnes, near Paris; the museums of the Blanchisserie de Craponne and Grézieu-la-Varenne, in the area around Lyon; in 1938, there were still five hundred family laundries in the villages of Craponne and Vaugneray which collected, transported, washed and returned the clothes to the inhabitants of Lyon.
3. F. Wasserman, *Blanchisseuse, laveuse, repasseuse. La femme, le linge et l'eau*, Fresnes, 1986.
4. M. Tatjer, 'El trabajo de la mujer en Barcelona en la primera mitad del siglo XX: lavanderas y planchadoras', *Scripta Nova. Revista Electrónica de Geografía y Ciencias Sociales*, vol. VI/119:23 (2002). Thanks to Cristina Borderías for this reference.
5. In Barcelona, washing and ironing 'were among the most common occupations of women after spinning and weaving cloth and knitwear'. Tatjer, 'El trabajo de la mujer en Barcelona'. In 1905, from a population of just over half a million inhabitants, according to the Workers' Census there were 1,553 laundresses; fewer than the 2,131 ironers, but more than the 1,205 dressmakers and the 1,085 seamstresses.
6. According to Bridget Hill, in eighteenth century London, the number of women washing clothes as a part-time job or in order to supplement another job was probably much greater than the number of women who said that they were professional laundresses. It is a well-known fact that married women rarely said they had any kind of job. B. Hill, *Women, Work and Sexual Politics in Eighteenth Century England*, London, 1994, 155.

7. M.J. Pastor, *Lavanderas y canteros, dos oficios tradicionales de La Canyada del Fenollar y Fontcalent*, Alicante, 2002.
8. The clothes tended to be much dirtier than nowadays. This was due to the fact that less importance was given to personal hygiene, houses did not have running water, sick people were cared for at home, there were no disposable items for personal hygiene etc. 'Dirty clothes should not be left to soak for too long because fermentation would occur which in addition to weakening the fabric would make certain stains more difficult to remove, thus complicating the already difficult task of washing [...]. In general, the clothes are beaten with wooden clubs...the soaking process is laborious, expensive and damages the fabric and therefore must and can be avoided.' *Enciclopedia universal ilustrada europeo-americana España-Calpe* (henceforth as *Enciclopedia España*), Madrid, 1988 [1916], 1146.
9. Heating the water made washing much easier since it softened the dirt and allowed the soap to dissolve. However, it represented a technical problem for the laundresses in addition to making the process more expensive in terms of time and fuel. The author of the entry for the city of Orense in the *Diccionario* by Madoz insisted on this point when describing the advantages of the hot water spring at Las Burgas: 'Las Burgas has been known since ancient times for its abundance of water and its high temperature [...]. The Abajo [spring] flows into a large basin or tiled pool of 120 square yards and is used as the village washing place. The Surtidero spring, which flows into another basin of 2 square yards, is used by the locals as a place to pluck birds simply by immersing them, to peel potatoes, wash entrails etc. As well as generally using the springs for cooking, bathing, washing dishes etc; due to its high temperature, the water is also used to great advantage for washing clothes and offers a great saving on fuel costs'. P. Madoz, *Diccionario geográfico estadístico de España y Ultramar*, Madrid, 1844-1849, 16 vols.
10. *Enciclopedia España*, 1146.
11. A. Surós, *Lecciones de higiene y economía doméstica para uso de las maestras de 1ª enseñanza y madres de familia*, Barcelona, 1892. Lesson XII: 'Blanqueo de al ropa por la colada. Principios en que ésta se funda. Colada común y colada al vapor'.
12. Pastor, *Lavanderas y canteros*, 47.
13. The clothes 'were left to soak in large clay washbowls (*cosis*), with the ashes of a plant called Russian thistle, which was grown exclusively for this purpose. The weed was then cut, dried and burnt and the ash was placed in a cloth to avoid it staining the clothes. Ash obtained from burning almond shells was also used. The ash was placed in a cloth or scarf and the clothes were scrubbed with it'. Pastor, *Lavanderas y canteros*, 44. According to Madoz's *Diccionario*, in Aznalcázar (Seville), 'In summer, the grass from the aforementioned marsh was cut, burnt and the ash used to make soap'. 'With regard to the ashes used to make bleach, it has been demonstrated that the best results are obtained from ash from fir trees, pine trees and plants in vegetation, such as potato plants and vine shoots. Then there are the ashes of fruit trees and oak trees, elm trees and ash trees. Thirdly, there is the ash which comes from burning white wood. Ash from chestnut trees stains the clothes, and ash from the alder tree produces black bleach'. *Enciclopedia España*, 1146.
14. The soap called 'Castilla' was manufactured under royal levy in Seville from Russian thistle and oil. It was exported to the American colonies and to various places in Europe. J. González, *Las reales almonas de Sevilla (1397-1855)*, Seville, 1975.
15. 'Later on, raw soap was used, which was sold as a paste by weight made by Tío Saboner (soap maker) in San Vicente [...] there was another home-made soap made from caustic soda and the remains of frying oil which was only used for coloured clothes. Subsequently, industrial detergent began to be used: Lagarto, La Mosca and La Herradura: Pastor, *Lavanderas y canteros*, 46. From the 1850s onwards, there was a soap factory in Madrid called 'La Confianza', which was situated next to the River Manzanares. It had a cauldron which could hold 200 arrobas of oil, another which could hold 60 arrobas, twenty-nine large clay jars to store oil which could hold 5.500 arrobas, seven oil mills, moulds etc. The factory's production, 'bearing in mind the fact that by using English caustic soda the operations take considerably less time', was at least 1,200 arrobas of soap per month (a cauldron containing 200 arrobas of oil produced 300 arrobas of soap), in addition to cold soap. In 1863, the factory was being extended to construct 'two or more upper floors to be used as workers' sleeping quarters, keeping the ground floor for soap production', when the work was brought to a standstill to make way for the railway. *Memoria abreviada del pleito entre D. Pablo Cayetano Gippini y la compañía de los ferrocarriles del Norte, sobre indemnización de perjuicios causados por la última, al primero, en su fábrica de jabón 'La Confianza' con la construcción del ferrocarril de enlace de las estaciones del Norte y Mediodía de esta corte*, Madrid, 1868.
16. The chemical process of saponification is described in many industrial monographs, such as F. Balaguer, *Fabricación de jabones*, Madrid, 1913. Domestic formulas based on olive oil can

- be found in E. Aramburu, *El olivo, el aceite y los jabones. Práctica agrícola e industria casera*, Úbeda, 2002 [194?].
17. 'It is best to rinse the clothes in plenty of water and, if possible, in running water [...] the dissolving effect is aided by shaking, rubbing, squeezing and wringing the clothes in the liquid'. *Enciclopedia Universal Ilustrada*, 1153.
  18. 'To dry the clothes they were spread out on the ground on top of leaves and held in place with stones. Otherwise, they were hung from ropes and held in place by large pins, like the ones used for women's hair'. Pastor, *Lavanderas y canteros*, 50.
  19. G. Correas, *Vocabulario de refranes y frases proverbiales*, Madrid, 2000.
  20. Pastor, *Lavanderas y canteros*, 47.
  21. For a study of different types of washhouses in Asturias see J.A. Diego *et al.*, *Fuentes y Lavaderos de Gijón*, Gijón, 1992.
  22. All references in Madoz, *Diccionario*.
  23. Horta, an area with a plentiful supply of water, had more than eighty laundry companies and four hundred washerwomen, 'in addition to men who were responsible for doing the washing using traditional methods, and, at times, for hanging the washing out to dry'. In 1863, a guide to Barcelona explained that: 'every Monday, the washerwomen from Horta came to the houses to collect the washing, which they returned on the following Friday. It is easy to recognise them. They are peasants carrying large bundles of washing. They stay in the same place all day until the carriages come to collect them late in the afternoon. Their prices are extremely cheap'. They stopped at an inn beside what is now the Cathedral Square, from where they 'split up and went all over the city to collect the bundles of dirty washing. When it was getting dark, they once again met up and started to walk back towards Horta [...]'. In the 1930s, the middle classes and the artisan classes still made intensive use of the services of washerwomen from Horta'. Tatjer, 'El trabajo de la mujer en Barcelona'.
  24. V. Pinto and S. Madrazo, *Madrid, atlas histórico de la ciudad, siglos IX-XIX*, Madrid, 1995, 256.
  25. In the 1920s and 1930s, Emilia la lavandera (Emilia 'the washerwoman'), from Renedo de Piélagos, 22 km from Santander, took in the washing of various families from the capital on Mondays. She travelled by train and carried the washing in two flour sacks, which she carried on her head (she placed one horizontally on a pad and another vertically on top of the first). She washed the clothes in the river of her village and returned the washing clean and dry on the following Monday (testimony of Alicia González de Riancho, born in 1923, whose family's washing was done by Emilia). These families had servants at home who often did the washing, but they sent away everything whose size made it difficult to wash at home.
  26. Pastor, *Lavanderas y canteros*, 44.
  27. Diego *et al.*, *Fuentes y lavaderos de Gijón*, 197. In England, port towns also required the services of a great many laundry workers: 'Port towns [...] usually generated a significant volume of laundry work [...]. A large shipping industry generated much employment for laundry workers as well as sailors, doctors and suppliers. According to one estimate early in the twentieth century, Liverpool provided work for nearly 600 laundries of all sizes, employing many thousands of hands, while in 1901 nearly 3,500 women were employed in laundry work in Glasgow'. Malcolmson, *English Laundresses*, 9.
  28. Plumbing systems in the cities, the origins of which dated back to Roman times, received a major boost towards the end of the eighteenth century due to the serious health problems caused by consuming water which was not fit for drinking. Despite the financial problems of town councils during the first half of the nineteenth century, many cities embarked on projects to provide piped water and to construct public fountains (and to regulate their use). According to Madoz, in Pamplona there were six public fountains in 1848. 'The water is supplied via an aqueduct which takes the water from mount Francoa, in the village of Subiza, two-and-a-half leagues from the city. [...] Since this construction is so important and so grandiose, it is worth a special description. From 1776 onwards, the town council started work on a project to supply drinking water which had already been drawn up. After spending considerable amounts of money on trials and tests, in 1780 the famous architect Ventura Rodríguez was entrusted with heading the project. He drew up the plans and levelled the passage of the water [...]. The town hall, which was aware of the importance and usefulness of such building work (which represented one of the greatest glories of the city) spared no expense'. Madoz, *Diccionario*.
  29. References in Madoz, *Diccionario*.
  30. There were already references to women who washed in the river Manzanares at the beginning of the seventeenth century. The *Guía y Avisos de furasteros que vienen a la corte*, by Antonio Liñán y Verdugo, which was first published in 1620, stated that: 'not long ago I

- went for a walk towards the Casa del Campo and after spending some time along the river bank, I glanced at the crowds of washerwomen or maids who were hand washing the clothes of the people they serve and telling each other their secrets'. Facsimile edition of the text from the Biblioteca Clásica Española, Barcelona, 1885, 206.
31. Archivo de Villa (Madrid), Contaduría, leg. 3/565, 5, 'Órdenes, Informes y testimonios del ramo de Bancas del Río Manzanares para su establecimiento y destino de su producto. Año de 1750'.
  32. 'Caudal del producto de Bancas. Año 1753. Cargo del Thes.ro Dn. Luis de la Azuela por lo que entregan en su poder los Arrendadores que ocupan los sitios para diferentes Bancas de la Rivera del Río Manzanares', Archivo de Villa (Madrid), Contaduría, 1-440-1.
  33. R. Mesonero Romanos, *Manual de Madrid. Descripción de la corte y de la villa*, Madrid 1982 [1833].
  34. Madoz, *Diccionario*, vol. 10, 922.
  35. Richard Ford, who travelled around Spain between 1831 and 1833, also bore witness to the washerwomen of the River Manzanares: 'this miserable brook, although its water is barely enough for the washerwomen... The water of this stream, which has the appearance of a river but without a river's flowing water, is attracted towards pools by water nymphs, who are responsible for looking after the *underwear* of Madrid, *quos et venti subeunt et aurae*. The washing, above all below the royal palace, is picturesque, because the multi-coloured clothes gleam gaily in the sun'. 'Madrid in 1835', describes the place called La Florida, before entering Madrid: 'on approaching the gate of San Vicente, the long rows of white and coloured clothes, shirts and doublets, petticoats and drawers, hung out to dry in peace and good company; the songs of the women at the washing places, the trains of mules with their jingling bells [...] the fast, lively rhythm of the castanets, and the strumming of guitars among the trees [...] this all gives this shady place a cheerful, lively appearance'. Quoted in J.M. Ferrer, *Visión romántica de Madrid en los relatos y estampas de los viajeros extranjeros del siglo XIX*, Madrid, 1997, 62 and 64.
  36. R. Domínguez, 'El Madrid isabelino visto por un francés: el barón Charles Davillier', *Villa de Madrid*, 96:11 (1988), 35-54.
  37. Madoz, *Diccionario*. There were 35 laundries in La Florida neighbourhood, 3 in the Canal neighbourhood, 9 in the Toledo Bridge neighbourhood and 28 in the Segovia Bridge neighbourhood, with 99 'companies doing work related to the laundries'. This represented the most numerous industrial or commercial business outside the city, followed by tile manufacturers (24), businesses related to tile manufacturing (16), inns (16) and plaster works (9).
  38. Tatjer, 'El trabajo de la mujer en Barcelona'. According to the author, in Barcelona the number of laundries per inhabitant was much lower than that of other European cities. In his *Teoría de la Construcción de la ciudad* (1853), Idefonso Cerdá pointed out that in Barcelona, clothes were washed once every two weeks, not every week. This was something that he recommended changing 'because of the infections caused by keeping dirty clothes so long'. As a hygienist, Cerdá was very interested in these public establishments and in his proposals for municipal by-laws; he devoted three articles to the conditions of laundries.
  39. Madoz, *Diccionario*, vol. X, 961.
  40. Convents were major users of laundry services. In Santiago de Compostela (despite the fact that the springs and fountains were often subleased: according to the mid Eighteenth-century *Ensenada Catastral*, there were 33 laundresses, yet in the *Comprobaciones* there were 81), the Monastery of San Martín Pinario sent out its normal washing to the washerwomen of the city (Santiago) and its liturgical clothes to the orphans of the Colegio de Huérfanas. Thanks to Ofelia Rey and Serrana Rial for this information.
  41. S. Castillo (ed.), *Reformas Sociales. Información oral y escrita publicada de 1889 a 1893*, facsimile [henceforth cited as RS], Madrid, 1985, vol. II, 153.
  42. *Speech made by the Mayor of Utiel on 25 April 1926 before the Field Marshal, Civil Governor, Military Governor and the Marquis of Sotelo to mark the opening of the new buildings for use as a public Laundry and Abattoir. The ceremony was attended by members of the local authorities and various important people from Valencia*, Utiel, 1926.
  43. 'My mother has very small hands; and since she has been washing all morning since she left home, her fingers are wrinkled like an old woman's skin, and her nails are shiny. Sometimes her fingertips sting from the bleach which burns. In winter her hands are raw and cracked because when they are wet and they dry in the open air, the water freezes and they get covered in little crystals. She bleeds just as if she had been scratched by a cat. Then she puts glycerine on them and they get better straight away'. A. Barea, *La forja de un rebelde*, Mexico, 1944, 12.

44. According to Madoz's *Diccionario*, the water from the River Monachil in Granada was 'clean, crystal-clear and very good quality, although its excessively low temperature causes most of the women and some of the men from Monachil to go weak at the knees'. In the region of Mansilla (Logroño), there were 'hundreds of natural springs with marvellous water', but 'the water comes down mixed with snow, hence the aforementioned illnesses [colds, sharp pains, pneumonia and rheumatism]. The women, since they have the river on their doorstep, do the washing in all weathers and at all times, which is why they all have more or less persistent coughs and illnesses which can easily become acute: a spring and a washing place would definitely prevent such illnesses and both things must therefore be constructed at once'. The fact that these women spent too much time in contact with water was made even worse by the fact that the only local industry was the manufacturing of cloth, 'which the women dyed black, red, blue or purple in their homes'. The most fortunate were the washerwomen in places where there were hot springs, such as Molgas (Orense), where 'the spring, a thick stone spout [...] provides hot water at a temperature of 37 degrees according to the thermometer [Reumour], and falls onto a square stone basin where women do the washing [...]'. People from the village use the spring water for their household jobs and it is a great help because there is a shortage of firewood in this village'.
45. Any work which required arms and legs to be on display attracted a great deal of attention and it was the principal feature of the social stereotype of washerwomen as women of dubious morality (which in any case was common to all women who worked in the nineteenth century). Social contempt for these women recently caught the attention of Dacia Maraini, who reconstructed the events of a true story in his novel *Isolina* (1992). One day in January 1900, the washerwomen working on the banks of the river Adigio, in the Italian city of Verona, pulled out a bag from the river with a chopped-up female corpse inside it. Investigations by the authorities and the local press discovered the dead woman's relationship with a lieutenant who had killed and got rid of her after leaving her pregnant. Society's understanding of the crime meant that it went unpunished and the whole episode was simply considered to be an unfortunate incident (for the lieutenant).
46. References in Madoz, *Diccionario*.
47. Municipal Archives of Rute [henceforth cited as AMR], box 148, 2-E-1, leg. 184-1. 'Document stating the fines imposed on the inhabitants of this village by the Judge in 1851, 52 and 53'. The other fines given to women were imposed in two cases 'for cheating people in the sale of food', in one case 'for washing a receptacle for making hot chocolate in the El Moral fountain', in two cases 'for uttering unseemly words', in two cases 'for not showing respect for the Authorities', and in two cases for unknown reasons. A few years later, in 1868, washerwomen were still being denounced and fined: 'It was reported to the Municipal authorities of Arcos that Feliciano de Alba Moreno was found washing in the village fountain, thus contravening the published edicts. She is therefore issued with a fine of four hundred maravedis' (15 January 1868). 'It was reported to the Municipal Authorities of Arcos that Ana Romero and Mariana Repullo were doing washing in the village fountain [...] a fine of four hundred maravedis is imposed on each of them [...] 20 January 1868'. AMR, box 148, 2-E-1, leg. 184-85, 1868.
48. Washerwomen employed by laundries earned by the hour or by the day. In 1856, Cerdá divided the washerwomen of Barcelona into three classes according to their salaries: those who worked in the city and earned between 5 and 6 reals per day; those who worked in the surrounding villages earned between 4.5 and 5 reals per day; and the assistants, who earned 0.48 reals per hour. According to the census of 1905, washerwomen earned between 2 and 3 pesetas per day, one of the lowest salaries among female workers of the city. Tatjer, 'El trabajo de la mujer en Barcelona'.
49. RS, vol. III, 463-67.
50. In a second budget for 'a married couple with two children', washing was no longer included, since 'considering the fact that the woman is responsible for doing all the housework such as cleaning, washing and ironing, cooking and looking after the children, the amount budgeted for this item has been reduced. This also means that the woman is unable to work outside the home and as such, no salary has been assigned to her'. In real life, female workers did all the work mentioned here *in addition* to going out to work.
51. RS, vol. V, Linares, 13 June 1886.
52. Barea, *La forja de un rebelde*, 15. The mother walked to the washing place called 'la Virgen del Puerto', which had been the meeting place for immigrants from Galicia and Asturias since the early nineteenth century. 'I don't know why they call this the Virgen del Puerto... It seems that the Virgen is here for all the people from Galicia who live in Madrid. In August, Galicians and Asturians come to the Pradera and sing and dance to the music of bagpipes, cat

- and get drunk' (13). We do not know which regions the washerwomen were from, which would have to be researched in the municipal registers, but remember that Davillier called the washerwomen of the River Manzanares 'sturdy Galician women'. It would not be surprising if many of them came from the Cantabric regions, where most of the workers in Madrid came from in the nineteenth century. C. Sarasúa, *Criados, nodrizas y amos. El servicio doméstico en la formación del mercado de trabajo madrileño (1758-1868)*, Madrid, 1994.
53. Barea, *La forja de un rebelde*.
54. *La Ilustración Española y Americana*, 25 July 1871.
55. *Blanco y Negro*, 31 August 1901.
56. These references in Madoz, *Diccionario*.
57. In Madrid, the Isabel II Canal, or Lozoya Canal, was started with the Royal Decree of 18 June, 1851, signed by Juan Bravo Murillo, president of the Cabinet. The Canal, which centuplicated the flow of water supplying Madrid, was finished in 1856. Water was provided by means of a plumbing system in all streets and all houses (of the centre) up to third-floor flats.
58. Barea, *La forja de un rebelde*.
59. 'In our beautiful Spain [...] they tried to set up washhouses and public baths for poor people, like the ones in England, the United States of America, Belgium, France and certain German states; but the idea never went beyond the planning stage'. The Commission was made up of Senator Acebal, the Representatives Pastor and Echevarría, the Professor of Medicine Corral and the architect of the Academy of Fine Arts Álvarez. The decree was from 15 June 1853. The Commission 'died soon after it was born due to a decree enacted by Sartorius on 21 September of that same year, in which the Mayor was left in charge of setting up the institution'. In short, responsibility was passed over to the town councils. 'It goes without saying that such a washhouse was soon forgotten'. *Speech made before the senate of the Central University by the director of bathing and mineral water of Arenosillo, Leopoldo Martínez y Reguera, during his investiture as a doctor in the Faculty of Medicine and Surgery*, Madrid, 1864.
60. The same can be said of ironing: it could be done by a specialised servant or by a person paid to iron clothes who went to the house one or more days per week, whereas special garments or those which needed to be starched, with crimped flounces, lacework etc. were taken to professional ironers who had a shop or an open workshop. *Guía de la planchadora o nociones generales de planchado, por E.O.M.*, Madrid, 1889; and *Manual práctico del planchado, por el planchador americano, Julián Sanz y Macario*, Madrid, 1893. Julián Sanz y Macario owned 'washing and ironing workrooms' in 21 Corredera street and 41 Barco street in Madrid.
61. In Barcelona, 'the laundries were usually owned by small businessmen – only a few had more than one laundry in different parts of the city – who paid Rate 2 contributions corresponding to the Industrial Registration. There was a guild system and in 1920 there was still an Association of industrial laundries'. Tatjer, 'El trabajo de la mujer en Barcelona', p. 9.
62. Article 13, Section V, Members' Obligations. *Association of Owners and Tenants of Closed Laundries of Madrid. Statutes*, Madrid, 1911; 'Recuelo: very strong bleach used to wash the most heavily soiled washing', in M. Moliner, *Diccionario de uso del español*, Madrid, 1966.
63. Tatjer, 'El trabajo de la mujer en Barcelona'.
64. 'In large towns, the washing was generally not done by the housekeeper, either because the housework took up all the available time or also because of the fact that it was easy to find people to do this kind of work [...]. There are distinct advantages to doing the washing at home. Firstly, it is markedly cheaper, the washing is whiter and there is less risk of garments getting lost. Secondly, if enough soap is used there is less need to beat the clothes which means that they do not wear out so quickly [...]. If the washing is done by a stranger, it is the housekeeper's duty to carefully make a note of the washing given to the washerwoman each week in order to only pay the amount stipulated and so as not to lose any garment by mistake.' Surós, *Lecciones de higiene y economía doméstica*. In order to avoid losing washing, 'there were ways of controlling the number of items given to be washed without needing to write down any figures, which made the task a lot easier considering the fact that most of the women could not read or write. Firstly, there was a device consisting of a piece of cardboard with a list of garments printed from top to bottom and the number of items printed from right to left; the total number of items of each type was shown by means of a shoelace passed through the corresponding hole. Towards the end of the nineteenth century, other tables were widely used which used symbols to record the washing that was handed over to the washerwomen and thus avoided the loss or theft of any garments'. Tatjer, 'El trabajo de la mujer en Barcelona'.

65. M. Bretón de los Herreros, 'La lavandera', in *Los españoles pintados por sí mismos*, Madrid, 1843, 169. Steam washing could also be done at home: 'When washing is not done very often, and as a result there are a lot of dirty clothes, steam is the cheapest means of washing. A large cauldron is placed on a purpose-built stove which runs on coal. The cauldron is covered, but certain holes are left so that the steam, which is released under great pressure, hits the clothes after they have been treated with an alkaline solution. The water must be kept at a constant high temperature but it should not boil'. Surós, *Lecciones de higiene*.