

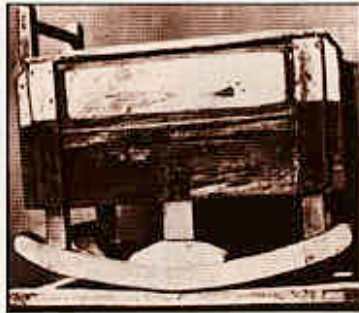
SOAP AND WATER



The story of home laundry

Previous page:
Washing machine
with power wringer
1930.

Rocker clothes
washer 1862
(Tickenhall
Collection,
Bewdley).



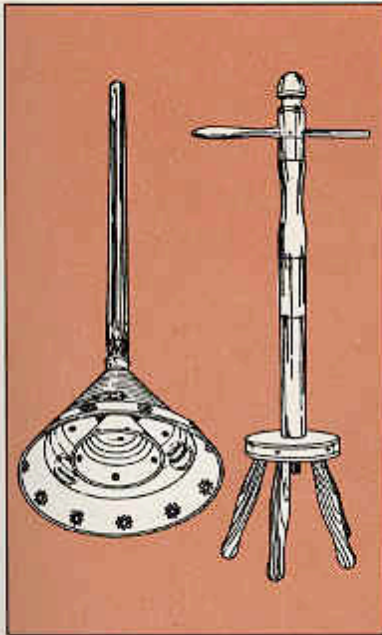
Before about the middle of the last century clothes were washed only if it became absolutely necessary. Water was a precious commodity that had to be carried quite a distance in buckets. Few homes had a piped supply and soap was an expensive luxury heavily taxed until 1853 when a cholera epidemic made the

Government realise the importance of encouraging cleanliness and hygiene.

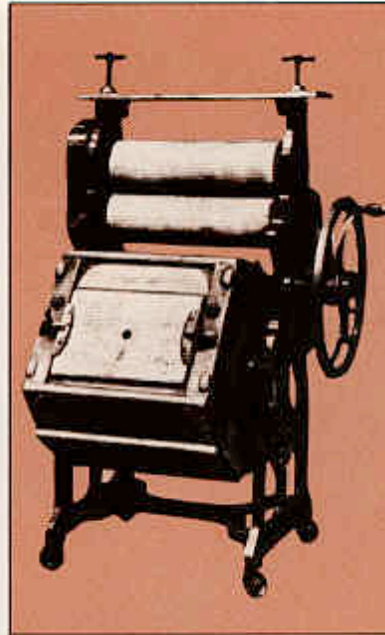
Until that date most homes made their own form of soap. Tallow (mutton fat) was mixed with wood ash (apple tree ash was said to give the whitest wash) and this was rubbed on the clothes soaking in a tub of water. In the country the clothes could be washed and rubbed using smooth stones at the shallow edge of a river or stream. It was not a frequent practice and a clergyman in the Scottish lowlands in 1882 found the smell in his church so offensive that he demanded his congregation "improve upon the practice of cleansing their church clothes the once a year at Easter".

Few homes had a kitchen. Washing was done in a sink in a room built off the living room, called a scullery and, after about 1847, those that could afford it had a piped water supply. Some sculleries had a brick hearth for heating a cauldron or copper of water; some of those better off financially built a separate wash house or they made use of a commercial laundry that collected and delivered weekly. These laundries opened in just about every town and city from 1860; some even operated in country areas, usually run by a family working from home. The poor could make use of a municipal wash-house, a service that was started in Liverpool by Kitty Wilkinson, a poor but public-spirited washerwoman, and by 1870 had spread to most cities and large towns.

Using a wash tub and lots of hot water, the servants – or sometimes a laundry woman hired for the day – rubbed the



Left: The posser and the dolly, washing tools of the 18th century.



Right: A mechanical washer made by Thomas Bradford & Co 1857.



Home laundry in the 19th century. The woman on the right is making 'lye' a common substitute for soap.





Washing machines
of the late 1920s.

clothes against a washboard that had a corrugated surface made of wood, glass or metal within a two-legged wooden frame. The clothes were first pounded and stirred with a "dolly" or a "posser", to loosen the dirt. The "dolly" had a pole with a T handle at one end and, commonly, a three-legged wooden stool at the other. The "posser" or "posher" was a pole with a conical end of perforated copper.

The first washing machines were made in about 1810 and had a dolly that was rotated by a handle like a butter churn. As this was found to tangle the clothes, the first practical machines dating from 1845 had a set of cog wheels fitted so, as the handle was turned, the clothes moved first in one direction and then in the other, anticipating the reversing action of most of today's machines.

All these washing machines had casings made of wood and, instead of a reversing dolly, some of them had a wooden board that pressed up and down on the clothes; others were shaped like a pram and had a rocking action.

After washing, the clothes were rinsed and then the water was squeezed out, usually by hand, sometimes between two boards. In 1859 the roller wringer made its appearance and was described as "the marvel of the age" for the water was quickly pressed out by passing the clothes between the wooden rollers. In 1865 a Frenchman designed a revolving barrel with perforated holes to remove the water by centrifugal action. The invention was admired and even adopted by some commercial laundries, but it could not compete with the popular "mangle" and the idea was almost forgotten. It was to be almost seventy years before the domestic "spin dryer" came into its own and ousted its rival.

In 1908 a young American engineer, John Fisher, attached a small electric motor to a machine which, through long driving belts (to keep the motor away from the water) made a dolly revolve back and forth. It was not really a success but Fisher and other inventors persisted and, by 1916, they discovered that by putting the dolly at the bottom of the washtub and sealing in the motor, it was not only more efficient but safer to use. With this method the clothes – not the water – were pushed to and fro and the dirt came out easily. This was the *agitator* – the washing action later to be used by all single and twin-tub machines.

An alternative method developed for some machines had a revolving cylinder within a wooden drum – the first of the *tumble action* machines common today.

By 1934 both agitator and tumble action machines were being mass-produced in North America within cabinets of white enamelled iron and steel rather than wood (which had to be hand-built). Two firms also remembered the idea of the Frenchman and, as early as 1924, offered a spin dryer as an alternative to the wringer.

All these machines were large, cumbersome, expensive and very heavy, so only comparatively few appeared in

Combined washing machine and spindryer made by Savage in the USA in 1924.

Opposite page: First of the compact, British made washing machines with a hand wringer made in 1948 and sold for £31.5s.





Great Britain. The British housewives preferred to use a laundry, a local wash house or an electric "wash boiler" such as the Burco, mounted on adjustable legs. This had a drain-off tap and a five-foot flexible cord with a splash-guard to protect contact points. It cost about £6.10s. (£6.50p).

The war interrupted development and sales. When it was over and the engineering factories switched from munitions to peacetime production, they looked at the pre-war wash boiler and decided it needed modernising. They based their new designs on an idea of George Gibson – another American. First Hoover and then Burco in 1947 produced a machine with a variation on the agitator – a propeller-like disc called an impellor, which was set in the side of the tub to stir the water. These machines were fitted first with a hand-wringer on the top and – in 1953 – a power wringer.

Three years later came the revival of a better idea – the spin dryer – and almost overnight wringing clothes was dismissed as old-fashioned and inefficient.

The next year – 1957 – saw the revival of another idea when Hoover introduced a spin dryer fitted into the same cabinet as the washing machine.

This new "twin tub" was a considerable improvement on the 1937 American design. The washing drum was not much bigger than the spin dryer; the smaller size being made possible by another remarkable invention – powder detergent. Soap on its own had never been very efficient for washing clothes. A lot of very hot water was needed to maintain a lather and then remove the suds. Powder detergents, derived from oil, did not need boiling water – indeed, compared with soap, they did not need much water at all to get the clothes clean.

Since the housewife had become used to seeing foam and lather, a little soap was simply added for effect but now the makers thought she was ready for a machine that worked best if it did not have to push a lot of water around. There was also a need for a machine to cope with the new man-made fibres like nylon, that could be harmed if washed in very hot water.

Machines that combined washtub and spin dryer together began to appear in the 1950s, first in the coin-operated, do-it-yourself laundries that opened in towns and cities



A 1956 housewife using her spindryer; her 1988 counterpart washes and dries her laundry in two automatic machines (Creda).

throughout the U.K. Although it was not realised at the time, these front-opening automatics were to decide the choice and shape of future washing machines for the home.

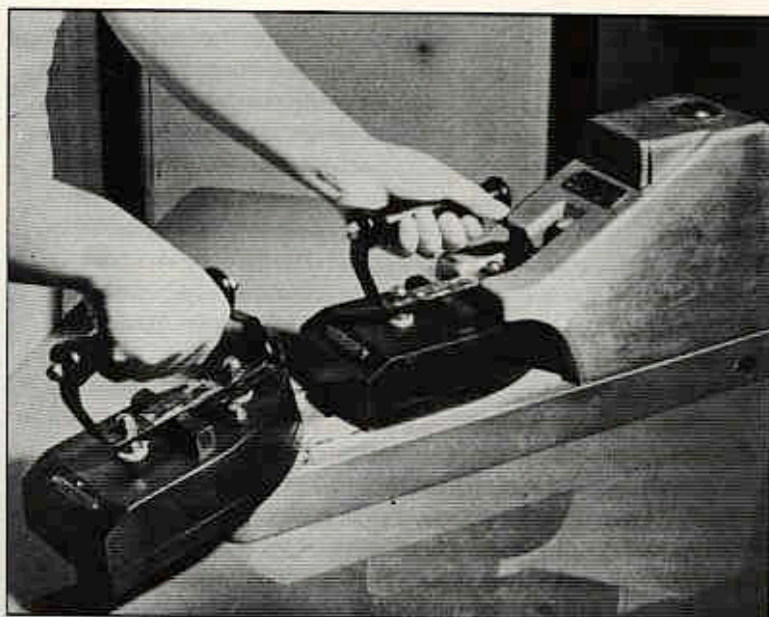
In 1956 vertical drum, agitator machines were introduced by Thor, Parnell and Hotpoint but other firms – like English Electric and Hoover – put their engineering skills into producing machines with the drum on its side where loading of the clothes was carried out from the front, like the “coin-op” washing machines. The advantage was that the clothes were then tumbled through the water instead of the other way around but, because this meant using less water, the detergent needed to be one of the type that made almost no lather. The machine could also be programmed to supply automatically the right amount of water at the right temperature, give a correct number of rinses and the right spin speed and time to suit the different fabrics.

Those who had used the “coin-op” had found that washing could be dried completely after spinning, using hot air drawn in or blown through the clothes in the drum. A domestic version of the tumble dryer was introduced by Parnell in 1958 although both Bendix and Thor had introduced in 1957 a washing machine that could tumble dry as well as wash and spin in the same drum. These first combined machines were not always reliable but, by 1978, improved mechanics and micro-technology started to be used and spin speed increased; controls were more accurate and washing performance improved.

Dishwashers

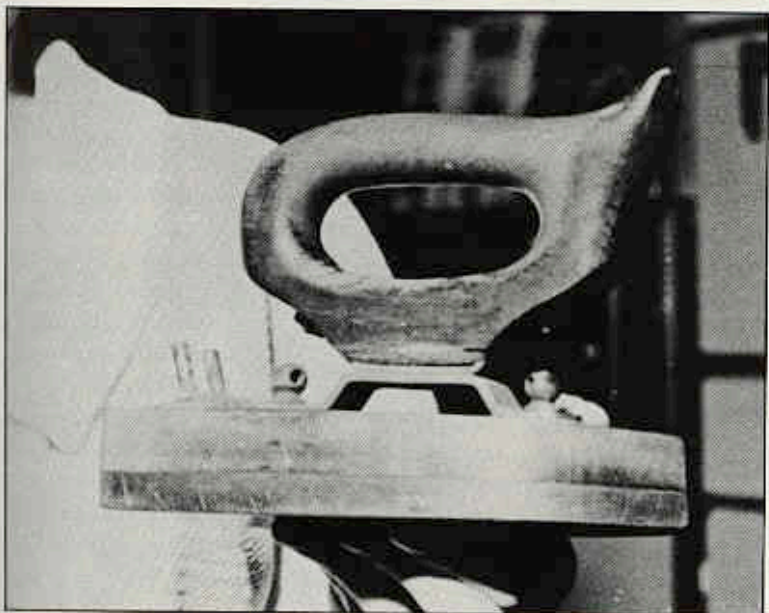
The dishwasher had a similar history to the washing machine – indeed, in 1946, one manufacturer introduced a dual machine with two tubs – one for clothes, one for dishes. The first dishwasher was shown in New York in 1910 but no practical model came on sale until 1932, and in Britain in 1937. Compared with other major appliances it has been rather slow to gain popular acceptance despite the fact that the average daily time taken at the sink, without a dishwasher, is 68 minutes.

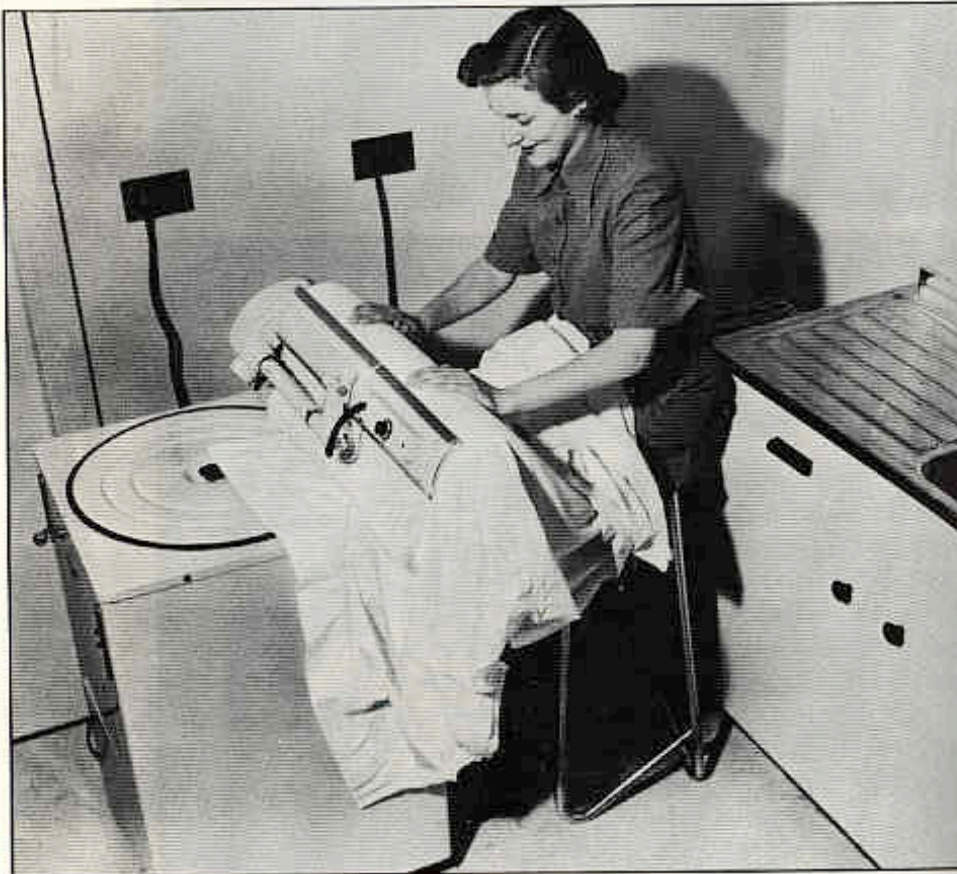
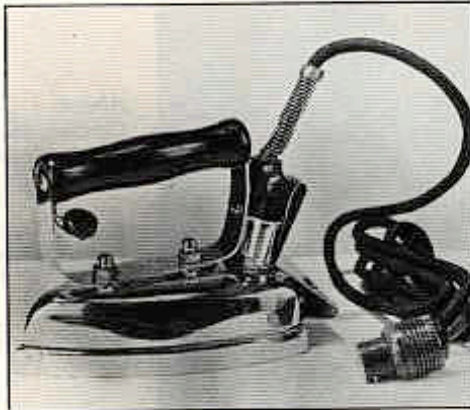
In 1962 in Seattle a new form of dishwasher was shown by Kelvinator – one that used neither soap nor water. Cleaning dishes was carried out by sound waves – ultrasonics – but development since has been halted. Now, with the need to



Above:
Cordless electric
iron first invented in
1883.

Below:
Prometheus iron of
1904.





conserve energy, the idea may be revived and there is even talk of a version that will clean clothes as well. One difficulty though with cleaning by sound waves is that it may be necessary to develop special crockery and fabrics.

Ironing

It was not just drying the clothes that was a problem but getting them smooth and shiny. Heavy, smooth stones, heated near a hearth and pushed over the clothes removed washing creases. Then came the "iron" – a block of thick metal with a handle. Beeswax or candle grease was used to make the heated surface slide over the linen and all kinds and shapes of iron were used from Elizabethan times (they were even mentioned in Shakespeare's plays) until well into this century.

Clothes finished with a hand iron were known as "laundry" – the rest was just "washing". In the Victorian era ironing was considered a particular domestic skill and in 1888 Mrs Beeton – the renowned author on domestic management – described a range of irons of different sizes according to the work for which they were intended. Some irons were hollow and were filled with hot embers or charcoal; some were made specially for ironing lace and delicate petticoats.

In larger households in the last century table and bed linen was smoothed and finished in a linen press consisting of a frame and stand with the top crossbar supporting a wooden screw. This screw then pushed down a wooden board on to the folded linen. Or there was a mangle – similar to the clothes wringer but with smoother rollers.

The first electric iron appeared in France in 1880 but it used an electric arc to create heat and pieces of red hot carbon were often shed on to the clothes burning little holes!

In 1883 a cordless electric iron was designed and patented by two engineers, Dyer and Seeley, in America. This had a special stand in which the iron was placed and plugged to heat up, but it was expensive and unreliable and was shown off more as a curio.

More practical irons were demonstrated in London, New York and Berlin in 1890 (one had been made in 1889 but it unfortunately exploded, killing its inventor).

Opposite page.

Top: Electric iron designed for connection to a light socket (1930) and a modern steam iron (1988)

Below: Washing machine with rotary iron (1950).

Both the GEC and Crompton Companies in 1891 were selling irons with the sole plate heated by an electric element and a flexible cord connecting it to a lighting point or socket outlet.

Although the basic design of the electric iron had now been established, it was not until 1920, when a growing number of homes had an electricity supply, that a popular priced model was on sale in London. This iron cost eighteen shillings (90p), weighed 9lb (4kg) but there was no heat control to regulate the temperature.

The first iron with a thermostat arrived in 1936. It had a choice of 5 temperatures and the electrical loading was 500W or 1000W, priced about thirty-two shillings (£1.60p).

In 1963 Hoover introduced the steam-or-dry iron in Great Britain. This produced jets of steam to dampen dry clothes for pressing or ironing. In 1967 came a version that was able to spray a fine mist of water. Other improvements in the following years have included standardised temperature settings for the iron to match the care labels on garments, button slots, a water gauge, smoother sole plates and interchangeable right-hand, left-hand flexes.

Successful efforts were made, too, to mechanise the whole ironing process using electric heating. The tailor's press and the padded heated rotary iron of the commercial laundry were scaled down in size to fit the home. That they never proved widely popular was mainly due to parallel advances in fibre technology. The number of garments that needed ironing had been gradually reduced to well within the capabilities of the modern electric iron which can do the average week's ironing for a family in less than two hours at a cost of less than 5p.

In 1898 a Victorian housewife in Liverpool recorded in her household accounts book that her family laundry sent out for the week had cost three shillings and twopence. She had also paid a laundry woman sixpence; there was twopence for ironing and twopence-farthing for soap and "blue" (whitener). Converted into the value of today's money she was paying more than her modern counterpart with her fully automatic machine and modern iron that takes a fraction of the time.