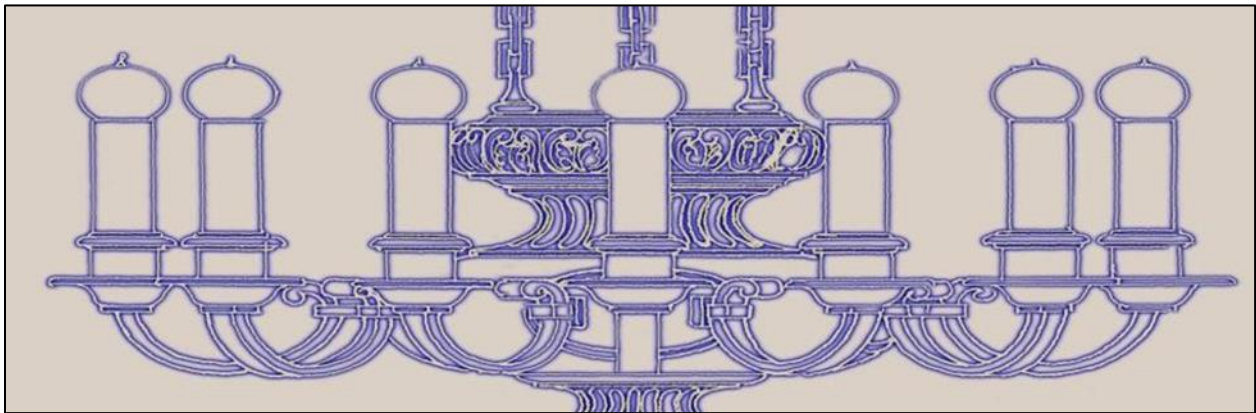


Independent of the Sun

Light, Energy & the American Home, 1913-1933

A Whole-House Exhibit at the Trail End State Historic Site, March 2007 - December 2007

Homeowners today take light, power and heat for granted, regardless of the time of day or month of the year. Prior to the advent of electricity and gas, however, humankind's activities were largely constrained by the rising and setting of the sun, the time of which changed depending upon the season. It became science's challenge to find a way to extend the light of day into the dark of night.



“Back in the days when flickering candles and smoky lamps were the only means of lighting, men were striving to make themselves independent of the sun.”

Better Homes & Gardens, 1927

Through careful study of period magazines, books and newspapers, and drawing upon the expertise of more modern researchers, *Independent of the Sun* seeks to show how the coming of electricity changed the American home in ways unimaginable to those who first fiddled with its powers. Illustrations are from the variety of period magazines donated to Trail End over the years.

The Sun of Our Home

Thanks to the efforts of Thomas Alva Edison, electricity first entered a select number of American homes in 1882 (Britain beat us by a few months, introducing electrical power to a

small town in Surrey in late 1881). By 1913, just over sixteen percent of America’s urban homes had electric service. By the early 1930s, that number had risen to over 85 percent. During those twenty years, nearly everyone – homeowners, housekeepers, children – came to realize the benefits of electricity. At the touch of a button, the flick of a switch, anyone could heat a room, cook a meal or turn on a light.

Electrical conveniences appeared in stores, ready for the home consumer. It didn’t take long for manufacturers to realize that novelty items could sell just as readily as truly important appliances such as refrigerators and cookstoves. *Better Homes & Gardens* noted in 1928:

It seems that the electrical industry has the entire family impartially in mind, for it provides comforts and conveniences for each and every member. From the baby up to the grandmother, there is the just-right electrical Christmas gift. Frequently the uses overlap, and Baby must share the immersion heater given him in order that he might have warm milk on demand, with Dad, who needs hot water for shaving early in the morning. But such “loanership” is not all one-sided, by any means, because Mother’s percolator will serve nicely as a bottle warmer in case Baby must pass his around among the other members of the family.



Electricity powered a myriad of labor-savers: lawn mowers, washing machines and floor polishers, just to name a few. It was thought that the money spent on appliances could be saved in other areas of life. Writer Robert Whitman pointed this out in 1929:

Today ... we are no longer willing to use muscle for work that can be done by machinery, and wherever we may live we want all of the labor-savers and the comforts that science can offer. We have progressed far enough to realize that nervous effort and physical energy are too precious to be wasted, and find greater economy in spending money on apparatus than on doctor’s bills and the wastage of shortened lives.

The coming of manufactured power also did something even more important – it changed America’s conception of time itself. The differences between night and day – even the changing of the seasons – lost their importance when we no longer had to struggle to see, to keep warm, to eat, to live comfortably in our homes. Said Lurette Van Arsdale Guild, writing for *Better Homes & Gardens* in 1930,

We have grown to be a nation of sun worshippers and light seekers, and we recreate in our evenings the daylight by means of our lights. With care and thought we can indeed make our lamps the suns of our homes.

Of course, not every household wanted - or was able - to take advantage of electricity and its associated appliances. While urban homes were wired relatively early, many rural towns and country homes did not get electricity or gas until the 1950s. Still others refused to spend the money on wiring for something that might be a passing fad. But for those who were able to participate, the growth of the electrical age in America was a wonderful time full of light, music and convenience:

To the homemaker, the great advantage ... is in the services and conveniences that relieve her of effort and forethought in her household tasks: light, heat and power at the turn of a switch, the cleanliness and speed of gas for cooking, the comforts of modern plumbing, and the simplified disposal of garbage and other wastes. Without these there is the heavy work of tending a coal or a wood range, the cleaning and filling of oil lamps and the fire risk that follows their use, the carrying of buckets of water, and the exposure to all weather when the needs of the household cannot be met indoors.

The Art & Science of the Electric Light

In Sheridan, Wyoming, independence from the sun came in 1893 when the first electric lights flashed on at the Sheridan Inn. A few days later, Sheridan's first electric company was formed. As reported by *The Sheridan Post*,

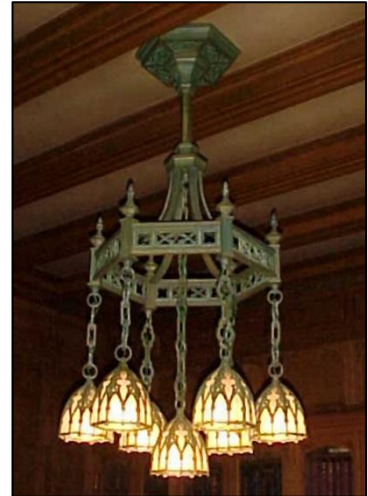
The stockholders of the Sheridan Electric Co. met at Coffeen's hall Saturday evening and organized. One thousand shares of the capital stock have been sold. The plant will be in operation inside of 90 days. The present capacity of the plant will be about 600 incandescent lights, 400 of which have already been applied for. The rates to be charged per month for the use of lights are as follows: For each incandescent light to run all night \$1.50; to run until midnight \$1.25. Incandescents for residences will be furnished one light for \$1.00 or three lights for \$2.50.

Soon, anyone who wanted power to light his or her evenings could tie into the municipal system. At first, power was just available in the evening hours. By 1904, however, electricity was available to Sheridan households twenty-four hours a day, seven days a week - proving it to be a modern, progressive community full of modern, progressive homeowners. Said *Better Homes & Gardens*,

A modern home cannot be called well-furnished if it is not well lighted. Lighting is both a science and an art and careful attention to its planning will repay the homeowner many times over in utility, comfort and improved appearance.

John and Eula Kendrick were not afraid of technology or its use in their house. They embraced electricity, putting more fixtures in their Foyer than the average man had in his entire house! When those lights were turned on, Trail End was a welcome sight indeed. Rosa-Maye Kendrick noted upon her return to Trail End one cold September evening in 1926:

In the thick early dusk with the lights of the town coming on one by one like jewels, we swept up our own driveway toward the big house, stopped in the circle of light and warmth from its opened door and knew it could not have been better named: Trail End.

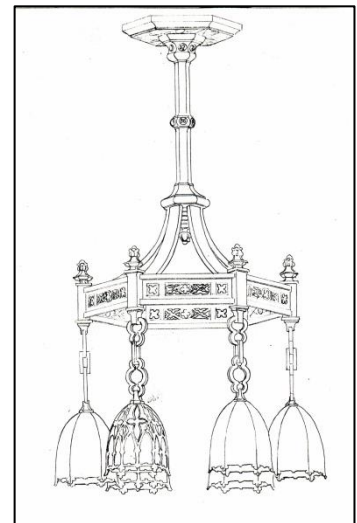


Decorating With Light

Electric lamps do much more than simply light up a room. They add to the comfort and character of it as well, dispelling dangerous shadows and highlighting the homeowner's choice of decor. When it came time for the early 20th Century homeowner to arrange lighting for the drawing room, living room or parlor, popular magazines such as *Better Homes & Gardens* were eager to provide instruction as to what type of lighting would enhance a given space:

When is your living room most attractive? By day with sunshine streaming thru the windows, or at night in the mellow light of cleverly placed lamps? With an adequate supply of portable lamps placed where they will throw light just where it is needed, you will be able to obtain a range of lighting effects and the occupants of the room will be sure of finding comfortable places for reading and other activities.

The lighting fixtures at Trail End were designed by Burgess & Granden of Omaha, Nebraska, which supplied artists' drawings of the proposed light fixtures before they were cast in metal. Since the fixtures were one-of-a-kind creations, these drawings allowed the Kendricks to see what they were getting and make comments or revisions prior to committing to a particular style of fixture. Once approved, the sketches were sent to Chicago, where the Braun Company cast the fixtures.



The light fixtures throughout Trail End do not adhere to any one style. The four Tiffany-style chandeliers hanging from the peaks of the Georgia Pine beams in the Ballroom, for example, have an artificial *verdigris* patina similar to that found on aged bronze, brass and copper. That same patina can be found on a Tiffany-inspired table lamp located in the Drawing Room.

It wasn't considered important for a particular style to be carried throughout the house. As long as they harmonized with the individual room, that was all that mattered: "Adequate illumination, unobtrusively yet artistically distributed," said one design maven, "eloquently interprets your individual taste and unites the furnishings of every room in an harmonious and charming arrangement."

The ceiling fixtures and fireplace sconces in the Trail End Drawing Room were heavy bronze with frosted glass inserts - exactly in keeping with modern decorating ideals: "Study carefully the character of your room. If the wood-work is heavy and there are beam ceilings, the fixtures should be of heavy, sturdy material, such as iron or brass or bronze."

The antiqued brass lighting fixtures in Manville's Bedroom are pure Arts & Crafts. They were chosen because, according to the Braun Company salesman, they fit the character of "a boy's room." The filigree brass and crystal pendant fixtures in Rosa-Maye's Bedroom were equally fitting to a "girl's room." Although fairly old-fashioned and fussy, these lights - and similar ones in the Master Bedroom - were still in keeping with current decorating advice: "If the room has delicate paper or painted panels or is light in color, there is our chance for well-selected crystal or silver."

The Dangers of Electricity

Electricity can be a powerful boon to society. It can also be powerfully dangerous. In 1914, two Sheridan homeowners and a fireman found out just how dangerous:

Mrs. Sherman D. Canfield pulled a small chain that lights an electric light. She had a terrific shock which stunned her and in falling to the floor the telephone was knocked down. It is believed that the electric light wire and the telephone wire came together and this caused her burns. Mr. Canfield was summoned home at once and in lighting a light in one room he was stunned by a shock. The house was full of smoke from the burning out of the telephone and of the insulation on the wires. The fire department was

"USE ELECTRICITY"
YOUR HOUSE CAN BE WIRED
WITHOUT INJURY TO THE
DECORATIONS

You should have your house wired--there will be no dirt and but little inconvenience--your walls and decorations will not be injured.

If you are not now using ELECTRIC LIGHT you are depriving yourself of one of the greatest modern conveniences.

Then, too, with ELECTRIC SERVICE in your house you can utilize "little electric servants," such as electric irons, vacuum cleaners, toasters, percolators, etc. Just the things for comfort.

Investigate TODAY. Always pleased to demonstrate appliances or give information on house-wiring. See us or any reputable electrical contractor.

"At Your Service"

MEMBER OF
SERVICE
THE
SOCIETY FOR
ELECTRICAL
DEVELOPMENT
INC.
EST. 1908
SAFETY

**Sheridan Co.
Electric Co.**

"The public is entitled to courteous treatment and to the Best Possible Service."

"DO IT ELECTRICALLY"

called out. Fireman Camplin was badly shocked when he made an examination of the wiring in the house.

The day after the incident, professional electricians were on the scene trying to determine what went wrong with the Canfields' wiring. In order to prevent such incidents, one of Sheridan's first electrical firms, Wyoming Electric Supply Company, frequently advertised the value of having homes properly wired: "It is of the utmost importance that house-wiring be properly installed and maintained by competent electricians, whose business it is to make the use of electricity as convenient and safe as possible."

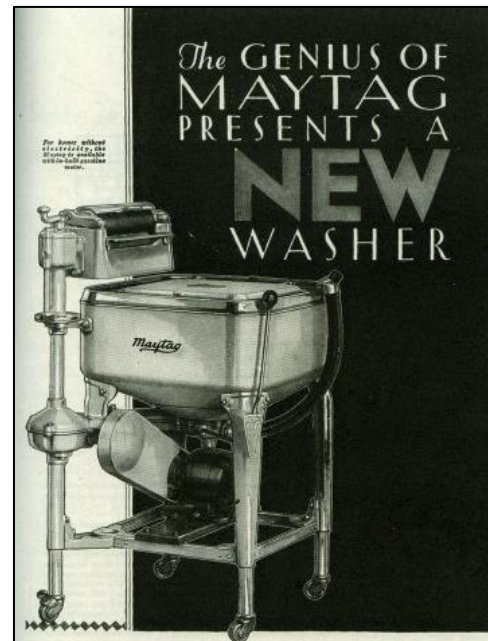
Better Homes & Gardens also reminded its readers of the hazards of improper wiring: "It would be well for the homeowner to learn how to test out his appliances. When handling electric wiring, remember you are handling something potentially dangerous."

The Rise of the National Brand

For centuries, homeowners were limited in the products they could hope to use in their homes. Local craftsmen created needed woodwork, stonework, metalwork or other building materials; regional farms and ranches provided meats, produce and dairy products – all of which had to be used immediately or preserved by canning, drying or curing; furnishings were created by small industry, for sale almost exclusively to local markets.

After the Industrial Revolution, the pace of production picked up considerably. Factories, farmers and craftsmen were able to create larger quantities of goods, and markets began to expand. Improved transportation such as railroads allowed for products manufactured in one part of the country to be sold to consumers in another part. Successful businesses gradually became larger, buying out or pricing out smaller competitors.

The 1910s and 20s saw the rise of many of the national appliance brands we know today: Bissell, Black & Decker, Carrier, Electrolux, Eveready, Frigidaire, General Electric, Hamilton Beach, Hoover, Hotpoint, Kelvinator, KitchenAid, Maytag, Proctor-Silex, Schick, Singer, Sunbeam, Tappan, West Bend and Westinghouse.



Some of these companies had been around for years – Maytag since 1893, for example, and General Electric since 1890. But it was the combined impact of four post-war developments that truly made mass marketing on a national basis both practical and economical:

- The introduction of assembly line manufacturing
- The development of cross-country “interstate” highways
- The rise of the interstate trucking movement
- The introduction of national radio broadcasting and its commercial sponsors

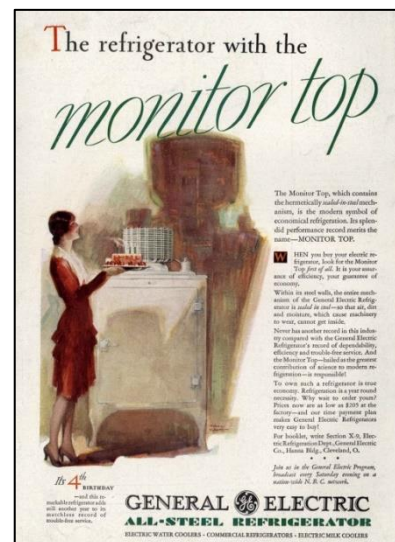
These developments made delivery of goods on a national basis much more practical, economical and profitable.

Conspicuous Consumption/Conspicuous Leisure

Dramatically increased sales came with national distribution. General Electric, for example, introduced its Monitor Top refrigerator to American consumers in 1927. By June 1929, the company had sold over a quarter of a million units. Just two years later, in 1931, it sold its one millionth Monitor Top. (Actually, it wasn’t sold – it was ceremoniously presented to the reigning king of assembly line manufacturing, Henry Ford.) GE was far behind Frigidaire, however. By 1929, the latter had already sold three-quarters of a million units, more than all other refrigerator manufacturers combined.

While some companies profited from national distribution, others couldn’t quite make the leap. In 1920, consumers could choose from over 200 different models of refrigerators made by dozens of companies. By the end of the 1930s, many of these small manufacturers – especially the ones limited to regional distribution – were priced out of the marketplace by the cheaper national brands.

For a variety of reasons – post-war enthusiasm, availability of product, the rise of installment plan credit programs, etc. – the 1920s were a time of rampant consumerism. If it was made, someone – several someones, more likely – wanted to buy it. In an attempt to explain this sudden interest in acquisition, economist Thorstein Veblen noted that Americans wanted to impress each other with both their possessions (conspicuous consumption) and their ability to enjoy spare time (conspicuous leisure). Many of the newspaper and magazine advertisements in the first third of the 20th Century – including those used in this exhibit – are based upon Veblen’s theories.



Marketing To the Middle Class

Competition between these national companies was fierce, as evidenced by these refrigerator advertisements, placed in national magazines – *Ladies' Home Journal*, *Good Housekeeping*, *Better Homes & Gardens* – between 1926 and 1930:

- **Frigidaire** - *By all standards of measurement costs less than any other electric refrigerator nationally distributed. There are more Frigidaires built than all other electric refrigerators combined.*
- **Kelvinator** - *Perfect automatic refrigeration is Kelvinator's permanent contribution to the higher standard of living which the present age is bringing to the American home.*
- **Williams** - *This advanced new Ice-O-Matic is simple, quiet, and costs little to operate. It is installed by simply plugging in a light socket. Williams Ice-O-Matic literally pays for itself by the food it saves!*
- **General Electric** - *Nothing can give you greater assurance that food will be wholesome and healthful than a General Electric refrigerator.*

Most popular magazines - if they weren't aimed at a specific market, such as *The Country Gentleman* (agriculturalists) or *Needlecraft* (needleworkers) - were targeted towards female members of the middle class or those who aspired to join the middle class. To inspire a "keep-up-with-the-Jones's" attitude, advertisers nearly always presented an image of class just higher than the one to which the reader belonged. According to historian Sarah White of the University of Virginia,

This involved defining that class, that is, creating a middle class agenda that involved the proper way to entertain, the proper way to clean, and the proper roles for a civilized woman, man and family. Many advertisements for food and household products played on anxieties about being a good wife and mother. Others targeted a product's time saving qualities and scientifically proven health benefits. Guilt was (and is) an effective tool: guilty if the sink was dirty, guilty if the children wore dirty clothes, guilty if they didn't eat right.

General Electric became particularly adept at playing the guilt card. Consider this refrigerator advertisement from a 1929 issue of *Better Homes & Gardens*:

A cut finger, brought tearfully to you for first-aid. The busy sound of small feet clumping down the stairs. A tousled head and one bright eye peeping at you from the bed clothes. He seems so little now – but the years hurry by. What will he be like when he grows up? Will he be tall and strong? Will he be kind and brave? Will he be – happy? So much of his

future depends upon the food he eats. For, good food builds good health – and health is the foundation of a successful life. Nothing can give you greater assurance that his food will be wholesome and healthful than a General Electric Refrigerator.

Make Your Own Summer

In the early 1910s, Sheridan had few options for home heating. Wood was too expensive, heating oil wasn't readily available, and gas was not introduced until later (in 1917, gas made from local coal was used to heat Sheridan homes; natural gas arrived in 1930, piped in from fields in southern Johnson County). That left coal, the black diamonds of the Tongue River valley.

From Black Diamonds to White Coal

Fortunately, local coal was available by the ton – literally! Nearly twenty underground coal mines flourished between Sheridan and the Montana border, providing some of the best coal ever mined in the state. At Trail End, the Kendricks purchased their coal from the Model Coal Yard. Prices were fairly reasonable: in 1914, they paid \$2.50 a ton for egg-sized chunks (adjusting for inflation, that is comparable to what we pay today).

The problem with a coal furnace was that it took a strong back and a good shovel to feed the fuel to the fire. It was back-breaking work, particularly in the winter or in a home of any size – Trail End, for example, could burn up to a ton of coal a day in the winter months.



In the early 1920s, automatic coal stokers became popular, thus eliminating the need for a husband, housewife or hired man to shovel coal twenty-four hours a day. In 1926, many Sheridan homes – including Trail End – followed a popular trend and converted their furnaces from coal to gas, thought to be a cleaner and therefore healthier fuel. By replacing dirty coal furnaces with smaller gas units, homeowners were able to add a whole new room to the house: the basement. Instead of dirt floors and stone walls full of coal dust and ash, basements received real flooring and painted walls and became living spaces where men often set up their home workshops.

Even with all its perceived benefits, clean-burning gas wasn't seen as the ultimate fuel. In 1929, Better Homes & Gardens predicted the coming of "white coal":

For our ease and convenience, we are using more and more expensive heat units to heat our homes. First we used wood from the surrounding forests, then coal dug from neighboring mines, then the best coal we could buy that would be clean and easy to handle. The next step was oil, and almost at the same time came gas, with its many advantages. Next will come white coal, fed to our homes thru wires, for the electrically heated home is not a far-distant vision.

Although Trail End has eight fireplaces – three in the basement, three on the first floor, and one each on the second and third floors – the Kendrick family did not rely upon them for heat. Instead, the lovely tile and marble-faced fireplaces were primarily decorative. When a fire was lit, it was mainly for atmosphere. For real heat, the Kendricks turned to the hot water radiators placed in every room. They were seen as quite an advantage over a fireplace. According to one manufacturer,

Throughout the raw, bleak days of early spring, cheerful warmth will fill your home. Your wife will be happy, the baby healthy, with a turn of the radiator valve, you will make your own summer.



Perfecting the Air

With manufactured heat came manufactured dryness. As one furnace company stated,

In keeping in our heat, we have kept out fresh air, and not only that, we have taken the cold air that did exist, heated it to a high temperature, and have used over again air which has a dryness comparable to that of the Sahara Desert.

Humidifiers became essential, even in homes like Trail End that used hot water heat (although they were warmed by hot water, these radiators did not put moisture into the air). While the first humidifiers were simply containers of water placed on or near radiators, electric humidifiers soon joined the ranks of laborsaving household appliances.

The up-to-date homeowner also had to think about installing ventilators or portable fans. Not only were they useful for cooling the house in summer; a good kitchen fan could clear the air of unpleasant smells. In a domestic world obsessed with appearing perfect, it was important to keep cooking odors and kitchen fumes away from the dining room. Not only did ventilators make life more pleasant for the family, they helped cut back on some kinds of cleaning. As one ventilator manufacturer noted in 1929:

The tiniest whiff of cabbage, the least suggestion of greasy smoke drifting in from the kitchen, and the psychological effect of your perfectly-appointed table and daintily-served food is completely lost! A West Wind Ventilating Fan gives offensive cooking odors no chance to 'explore.' It sends them outdoors immediately, before grease-laden fumes can settle on curtains and upholsteries.

The Modern Matron

Prior to the introduction of electricity and electrical appliances, a woman's life was consumed by household tasks: carrying water to be heated on the stove; hauling wood for the cookstove and fireplace; sewing, washing, rinsing, wringing, drying and ironing clothes; beating rugs; scrubbing, sweeping and polishing floors; shopping for, preparing and cooking food; washing dishes – and more! On a ranch or farm, that list could grow to include churning butter, milking cows, raising chicks, etc. All by hand, by sunlight or lamplight or in the dark, each and every day of the week.

Electricity may have been a boon to business and industry, but it could not have impacted commerce more than it impacted the lives of the typical American housewife. As *Better Homes & Gardens* stated in 1929, changes were more than overdue:

In the world of Business men have banished the dragon of Drudgery. But what of our world? Are you still hampered by heavy household tasks that take your time and sap your strength? Does the weekly washday take its heavy toll of hours that you could spend so joyously, so profitably in other ways? Are you passing up enjoyable, stimulating, youth-bringing pleasures and pastimes because of this heavy burden? It is no wonder then that washday steals more of Youth and Beauty than the other six days can restore!



For thousands – if not millions – of American women, liberation from the worst of these household tasks came with the advent of electricity and the appliances powered by it.

Expanding Horizons Beyond the Washboard

In the 1920s and 30s, advertisers were determined to get their products into every American home. To do so, some questioned the homemaker's devotion to her husband and her willingness (or unwillingness) to be part of his world rather than a slave to housework. Consider these 1929 ads:

- *Just what is it to be a good wife in this modern age? Deep down in your heart – in the heart of every woman – is that eager, wistful wish to be a good wife – a partner in your husband’s plans; his cheery companion in leisure hours.*
- *You realize that in this advanced age your husband needs a mate as modern-minded as himself; a wife whose tastes and temperament are attuned to the present-day pace. He is moving ever forward. You cannot afford to lag behind.*
- *Fifty years ago, giving her hours and strength to a hundred household tasks, Grandmother worked her weary way in a little circle – a circle symbolic of the narrow band that marriage had put upon her finger. But times have changed. The modern matron must banish burdens that take her time and sap her strength – must have freedom to become her husband’s mental mate and true companion. Her wedding ring must symbolize a larger circle; a circle big enough to hold her hopes – and his.*
- *Washday in your home is doomed – a day of rest and recreation is assured – if you will decide now to get the facts ... In place of drudgery you are given a full day of freedom; happy hours for those pleasant pursuits – those gracious arts – that make one a truly good wife – a worthy companion of the twentieth century husband.*



The implication was clear: if a woman didn’t adapt to new technologies, her husband would go out in search of someone who would! Magazines worked with advertisers to convince women that it was okay to lighten their burden, to make time for their men and themselves. Home economist Mabel Stegner, writing in *Better Homes & Gardens*, stated,

There is virtue in purchasing equipment that will make work easier and more pleasant and will release time and energy for reading, for music, social contacts, companionship with husband and children, and outdoor recreation.

The Up-To-The-Minute Hostess

One of the pursuits that could be enjoyed with all this extra time was entertaining. Prior to the introduction of time and labor-saving appliances, women didn’t have the energy for anything but housework - at least according to advertisers. The Syracuse Washing Machine Corporation, for example, published the following in 1928:

She washed for five in the morning, yet served for seven that night. How does she do it, envious neighbors ask? How can she tend to her home, her children, do a huge wash and still feel able to entertain? There’s no magic about it. She does nothing that you can’t do.

The only difference is that she owns one of the marvelous new Easy Washers. ... With all this marvelous help, with so much time and trouble saved, is it any wonder that Easy owners no longer dread washday? Is it any wonder that they feel fresh, able to entertain of an evening, where once they would have gone to bed?

As technology advanced, so did our ways of entertaining. In the late 1910s, small counter-top electrical appliances began finding their way into the American home. By the mid-1920s, there were dozens to choose from. Many were designed for use at the dinner table. One of the most popular was the electric waffle maker:



Have you ever poured at a waffle supper? If you have missed this experience, you will be surprised how joyful these informal meals can be. And, of course, when one has no help in the kitchen, the hostess has the pleasure of being with her guests, or the member of the family who is delegated to bake the waffles can enjoy them with the rest of the family.

To enjoy these waffle makers and other appliances – percolators, toasters, sandwich makers and chafing dishes – the modern hostess had to ensure that her dining room was wired correctly. The General Electric Company encouraged:

Not till you've enjoyed the thrill of making an admirable waffle right at the table, a ravishing chafing-dish mystery, golden brown toast, delicious coffee, will you realize the luxury and convenience of proper wiring. Your guests, your family, you yourself, will revel in it. Don't waste time scurrying to and fro preparing food. See that your dining room is well wired and then you can be an up-to-the-minute hostess.

The Charm of Well-Dressed Hair

For centuries a woman's head of hair was said to be her "crowning glory." Countless products were sold to make hair grow, keep it shiny and healthy, and increase its beauty. Most women never cut their hair; instead they braided it, wound it around their heads, and didn't wash it for weeks at a time. In the early 1900s, the representative Goddess of Hair was the Gibson Girl. Drawn by Charles Dana Gibson, the Gibson Girl always features flowing hair, intricately coiffed.

Following the end of World War One, it became quite fashionable for women to “bob” their hair. At first, only actresses and young ladies of society adopted the new style. Soon, middle class women came to realize the simplicity of short, cropped hair. In 1924, it was estimated that some 2,000 women a day were getting their locks sheared – in New York City alone! Society as a whole was horrified. Men divorced their wives; employers fired their employees; preachers raged from the pulpit – all because of bobbed hair. Manufacturers and businessmen, on the other hand, soon realized the market for salons and appliances that would assist women in making their new, short hair look as good as possible. An ad in *Needlecraft Magazine* in 1924 noted, “The charm of well-dressed hair is now within the reach of all who have electricity available. It is very easy to have beautiful wavy hair with an electric curling-iron in your boudoir.”

Interestingly, as household incomes went up, the use of home styling appliances went down. According to Ronald Tobey, author of *Technology as Freedom: The New Deal and the Electrical Modernization of American Homes*, Americans used their increased income to purchase services rather than labor-saving appliances:



Women went out to beauty parlors, rather than curl their hair at home with electric curling irons. Once bobbed hair became a popular women's hairstyle in the mid-twenties, the sale of electric curling irons declined, since the style required the gas iron available at parlors.

When it came to the electrification of the home curling iron, it was not always the iron that was electrified, but the heating unit into which it was set. Though curling irons that plugged directly into a lamp socket were not unheard of, the curling iron as we know it today was not patented until 1980.

As for the personal hair dryer, it was the first domestic electric appliance to utilize Bakelite, an early plastic that could be molded in a variety of colors. It was this modification that made the dryer not only functional, but a fashion accessory as well: “Keep hair beautiful,” extolled one advertisement.

Dry hair in few minutes. After washing give hair a treatment of energizing warm air, then a breeze of fresh cool air – very exhilarating. Sets water waves quickly. A chic ivory toilet article.

Perhaps the scariest home electrical device ever invented – at least for women – was the permanent wave machine. One 1924 unit, manufactured by Nestle-Lanoil, promised “quick, permanent and lovely results” through the magic of electricity and chemistry:

Dainty Home Outfit safely transforms straightest hair into charming permanent waves, curls and ringlets. A single application gives you naturally curly hair. This process has made permanent waving so simple, safe

and comfortable that you can realize the dream of your lifetime even in your own home. Are you going to go on struggling forever with your straight hair?



The rage for bobbed hair brought about the creation of the modern beauty salon. Until the mid-1920s, beauticians did not cut hair – they styled it. Barbers were the ones who did the cutting, and their clientele were almost exclusively men. After women abandoned their familiar salons in favor of barber shops, beauticians concluded that they would have to learn to cut hair or lose their livelihood! Thus the full-service salon was born – complete with gas-heated curling irons, electric permanent wave machines and hair dryers.

According to her diaries, Rosa-Maye Kendrick went to the salon on a regular basis to have her naturally wavy hair waved even more – sometimes with unsatisfactory results.

- **April 10, 1924** - Down to Pazzelli's to have my hair waved. An easy session but dubious as to results, since wave loose & undecisive.
- **May 10, 1924** - Mr. Minty came early to cut my hair and insisted on washing it (or pretending to); had to send to his shop for another dryer, then insisted on a water wave & a marcel.

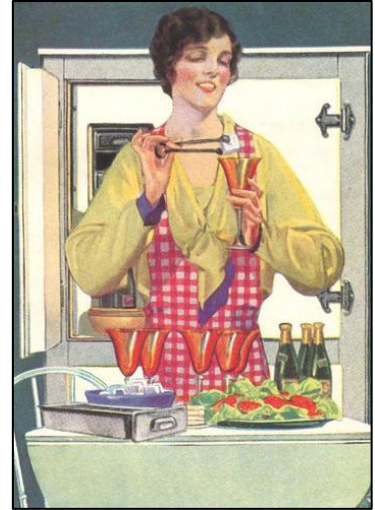
Perhaps she should have considered the Nestle-Lanoil Dainty Home Outfit!

From Housekeeping to Homemaking

From a small, hot, dark and dirty place located in the furthest reaches of the home, the modern kitchen of the early 20th Century was expected to emerge into a clean haven of creativity where the housewife could turn out magnificent meals for her family on a daily basis. That this was not always the case didn't seem to bother manufacturers or their ad men! After

the invention of the electric and gas stoves, it took years for them to find their way into the majority of American homes. Even so, advertisers stayed on task – making modern utilities sound like domestic miracle-workers:

Is there then not some new equipment that you need? Have you the major pieces of equipment which do so much to change housekeeping into homemaking? There are modern ranges with oven temperature regulators ... mechanical refrigerators which no housewife could possibly do without after once having had one; and dishwashers that save time and labor. Then, too, there are the small devices equally important in the kitchen activities of preparing, cooking and clearing away meals, such as small electric beaters and mixers for cakes, mayonnaise and eggs.



Electric & Gas Stoves, Ranges & Ovens

The first electric stove was patented in the 1890s. Unfortunately for the patent holders, it was a long time before the invention found its way into the average household. At that time, few homes outside major metropolitan areas were wired for the amount of electricity needed to power such stoves. Instead, gas stoves were the first “modern” kitchen appliances, introduced in the 1880s.

Made to burn manufactured, natural or compressed gas, these ranges were particularly popular in urban and suburban areas. Sheridan’s first gas stoves began to appear in the late 1910s, powered by manufactured gas created from Tongue River Valley Coal (natural gas arrived via pipeline from southern Johnson County in 1930). The new stoves had many advantages over wood and coal-burning models: they were smaller, cleaner, more easily regulated, and cooler. With insulated sides and a smaller cooktop, both gas and electric stoves put out far less heat than their predecessors. In the 1930s, the Standard Gas Equipment Corporation marketed its Smoothtop range by pointing out the benefits of its insulation:



Cook in a cool kitchen this summer with Smoothtop’s insulated oven. Cold cuts, vegetable salads, jellied soups, preserves – all those cool delicacies which the family loves for summer-time meals – these all have to be cooked first! This means heat

somewhere in your kitchen. Now you can do your summer roasting, baking, oven canning – in a kitchen as cool as outdoors. Smoothtop's insulated oven will prepare a whole summer-time meal, and will so perfectly keep its heat within itself that you can touch its outer wall while meat roasts in the oven. Think what this marvelous new Smoothtop gas range with its new insulated oven will mean to you this summer.

Companies famous for their wood/coal ranges – Monarch and Majestic, for example – readily entered the gas/electric market. While touting the benefits of their modern wares, however, they didn't forget the fact that many did not have access to modern utilities:

The secret of happier cooks and better cooking. Cook with electricity on a Monarch electric range. That's the secret, as thousands of women have already discovered. No wonder Monarch is the choice of good cooks! Long before the days of electric cooking – way back when your mother cooked with coal and wood – Monarch was a favored household name No matter what the requirements of your kitchen, there is a Monarch Electric Range that fulfills them perfectly.

Interested in appealing to all markets, companies also marketed apartment-sized ranges. Since the majority of city-dwellers lived in apartments, this proved to be an excellent strategy.

Refrigeration

The first artificial refrigeration was demonstrated in Glasgow, Scotland, in 1748, but nothing came of it. A century later, physician John Gorrie used compressed gas vapors to cool yellow fever victims in Florida. In 1851, he received the first U.S. patent for mechanical refrigeration. Commercial refrigeration began to appear in the 1850s, but refrigerators small enough to fit in the average American home were not introduced until the 1910s. Between 1911 and 1918, over two dozen home refrigerators had been introduced by such companies as General Electric, Frigidaire and Kelvinator. Costing twice the price of a new car, a refrigerator was seen by some as being more important than the automobile in terms of its benefits to society.

Refrigeration was one of the greatest boons to the early 20th Century homemaker. No longer did she have to worry about cleaning up after wet and dirty ice deliveries – the refrigerator cooled itself without ice. She could buy food in larger quantities, thus saving time and money going to the store. Because the refrigerator kept food icy cold, the homemaker didn't have to worry as much about food spoilage leading to illness. For the majority of families without a garden in which to grow vegetables and raise livestock, the advent of the refrigerator – combined with the development of the modern supermarket – led to a more varied diet as well as better health due to improved nutrition.

Even though refrigerators were expensive, manufacturers were not shy about touting their many benefits. In fact, several went so far as to imply that a woman wasn't a good mother unless she had a refrigerator:

You, as a conscientious mother, buy the best food for your children, prepare it with scrupulous care and cook it correctly. Yet, in spite of all, you may be giving your children food which is unwholesome – even dangerous! For even the best food becomes unsafe to eat unless it is kept at the proper degree of cold, which medical authorities agree should be 50 degrees or less – always. ... There is only one way to be sure that your children's food is fresh and healthful – correct refrigeration.



Electrical Appliances

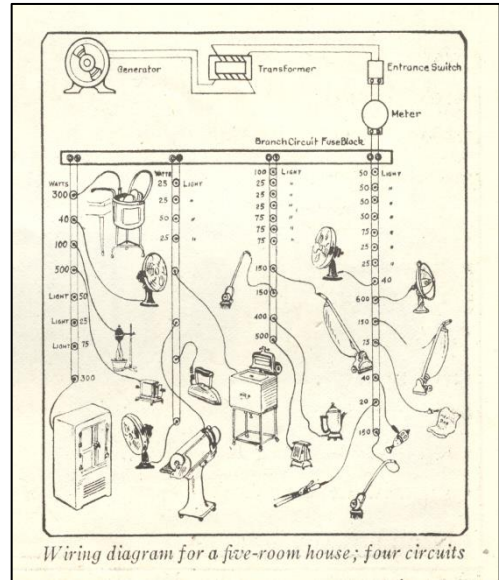
Another development destined to lighten the load of kitchen workers everywhere was the automatic dishwasher. Built right into the sink, the electric dishwasher, such as this 1927 Kohler, promised an end to “thrice-daily drudgery”:

Every clever woman has wondered, rebelliously and often, whether the dishes would always have to be washed by hand. They won't. The modern sink has arrived. It is electrified. It is the Kohler Electric Sink. Now you can wash the dishes with one finger – the finger that presses the button – and not get that finger wet. Think of being able to end for the rest of your life, the thrice-daily drudgery of dishwashing! It's rather wonderful, isn't it?

The early 20th Century housewife (or hired cook) had a myriad of electrical appliances to aid her in preparing meals for her family and cleaning up the kitchen afterwards. From toasters, percolators and egg cookers, to juicers, mixers and ice melters – if electricity could make a job easier, manufacturers found a way to create an “electric servant” to help:

The electrical equipment that Mother needs and probably wants, or wants and probably needs, are endless. For the table, she has the toaster, the percolator, the waffle iron, doughnut-baker, pancake griddle, grill, teapot, egg boiler and other things to choose from.

With all these appliances, one might begin to worry about safety concerns - both the appliances themselves and the electrical circuits to which they were connected. And that was a valid concern: during a test by Underwriters Laboratories in 1911, one early open-wire toaster burst into flame after six minutes! Even after manufacturers addressed safety concerns, there were problems. In the early 1930s, numerous house fires were caused by refrigerators which had been tampered with by owners seeking to bypass overload protection devices. As for household wiring, manufacturers and homebuilders alike recommended over-wiring rather than risk putting too much strain on an under-wired system:

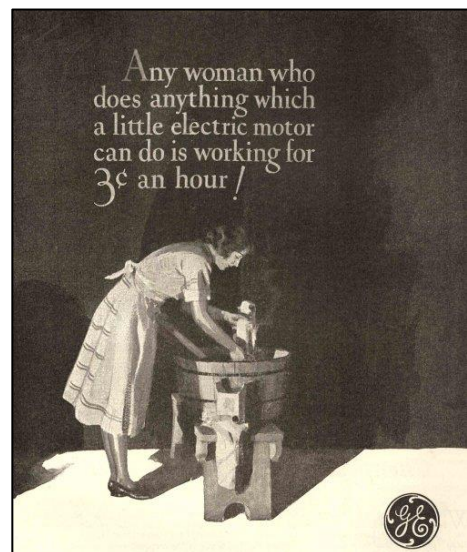


When you plug in your toaster or percolator, have you ever noticed how the lights dimmed for a moment? If you have, perhaps the circuit in your home is slightly overloaded and it would be well to run a new one for your toaster. ... Separate circuits for the toaster in the dining-room and in the breakfast-room, a separate circuit for the electric fan, the refrigerator, the range, for the outdoor lights, and for your light over the distributing panel, as well as for the ironing-board and bathroom-heater outlets.

Defeating the Dragons of Drudgery

The early Twentieth Century was a time of great change in the areas of household technology and cleanliness. While homes were always expected to be spotlessly clean, free of dust and dirt, they were now expected to be sanitary as well – free of germs. Most of the tasks that would create this sanitary home environment were exhausting labors that had to be repeated day in and day out, week after week, year after year.

One could ask the question: which came first, a higher standard of cleanliness or the appliances that made possible the attainment of that standard? It's a good question, but one that will not be answered here. Suffice



it to say that electrical appliances played their part in releasing the homemaker from the worst of household drudgery, but didn't necessarily cut down on the amount of time she spent on housekeeping tasks.

In its attempt to encourage American households to use more electrical appliances, General Electric equated the high physical price of a woman's labor to the relatively inexpensive cost of their products. Rather than spend a few cents an hour to use a modern device, they said, a woman spent years of her life instead. It may have been an effective advertising campaign, as the sale of GE appliances soared in the late 1920s.

Laundry

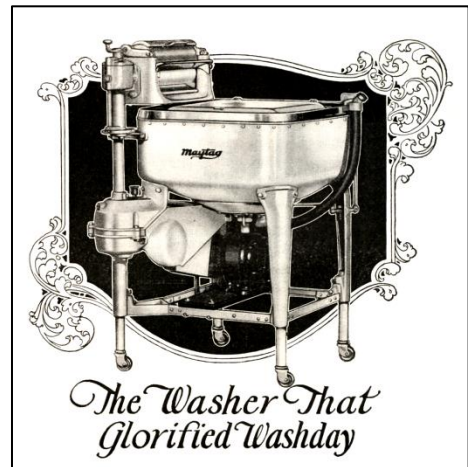
Once a week – usually on Monday – laundry was done in nearly every household in America. Before automatic washers were introduced, the homemaker would follow an age-old routine of laundry-related activities:

- Gather dirty clothes and linens
- Sort clothes into loads by fabric type, weight and color
- Treat stains with bleach, ammonia or cleaning fluid
- Soak whites in bluing solution to remove yellow hard water stains
- Wash clothes in hottest water possible containing dissolved soap flakes
- Use washboard or dasher to scrub out stubborn stains
- Repeatedly rinse clothes – once in boiling water and once in cold water – to remove soap
- Run wet material through wringers – or wring out by hand – to remove excess water
- Dip clothes in starch solution, if desired
- Place any shrinkage-prone or hard-to-iron clothes on stretchers to dry
- Load clothes into wicker or wooden baskets
- Hang clothes up outside with clothespins until dry (if too cold, hang on lines in house)
- Take clothes off line and return to baskets
- Sprinkle water on any clothes that are to be ironed and roll them up to avoid creating more wrinkles
- Heat sad irons on stove until very hot
- Iron, iron, iron – being careful not to scorch the fabric
- Fold ironed clothes neatly for storage in drawers, closets or trunks
- Put clothes away

Washday was a backbreaking exercise in futility – the laundry just got dirty and wrinkled again and had to be cleaned and ironed all over:

Always Ruth was hoping to find time to answer neglected letters; to make new curtains for the front room; and above all, to be a real comrade to little Betty. Yet this she was denied – held captive by a hundred household tasks. Worst of all the time-takers was Washday with its everlasting steam and smell. Week after week one precious day was lost and nothing to show for it. Nothing but a tired body, an upset house – and the prospect of another washday. But that was before Ruth made her discovery; before she found freedom. The day the modern laundry came into her life, the Dragon of Drudgery crept out the back way. Now 'Washday' is a matter of minutes.

The first electric washing machine was introduced by Hurley Manufacturing Company in 1908 and patented in 1910. Invented by Alva J. Fisher, the Thor Washing Machine consisted of a galvanized tub with an electric motor to rotate the drum (previous hand-cranked washers had been made with wooden tubs). Whirlpool and Maytag both introduced their first electric washers in 1911. Maytag, which is still a powerhouse appliance manufacturer today, came up with two important innovations: in 1915, it created a gasoline-powered motorized washer that could be used on remote farms and ranches; in 1919, it introduced the first aluminum washer – an achievement which up to that time had been deemed impossible.



Relieving homemakers from the worst aspects of arduous washday tasks was the goal of all manufacturers of power washing machines, driers and irons:

- **SEARS ROEBUCK, 1923** - *An Allen Ironer saves three to four hours' time every ironing day!*
- **HURLEY MANUFACTURING, 1926** - *Let Thor Electric Washers and Ironers save your time, strength and youth!*
- **BETTER HOMES & GARDENS, 1928** - *A clothes drier in the home laundry makes the weather unimportant!*
- **SAVAGE WRINGERLESS, 1929** - *Your hands need never touch water again on wash day!*

Some manufacturers, like Easy Washer, got a little carried away in describing their product:

A thing of copper, steel and aluminum, yet it seems to reflect something of the human quality of the women who helped us build it, seems to understand and sympathize with the troubles and burdens which they passed on to us and which it is designed to relieve.

In 1929, the Eden Appliance Corporation introduced the Edenette table-top washing machine, a unit particularly appealing to apartment-living city dwellers and others with limited time and space for laundry tasks:

Here is Your Washing Machine! No drudgery washing the Edenette way. A perfect washing turned out in 15 minutes right on your kitchen table or wherever convenient, without fuss, bother or slopping suds. Your Edenette Electric Washer is a great time and labor saving piece of machinery. The machine is so simple that the maid can use it, as no special skill is required.

Dusting & Polishing

Before the turn of the 20th Century, most homes in America had bare wood floors covered by area rugs. At least once a year – and usually more often – these rugs would have to be rolled up and taken outside to have the dirt beaten out of them. If the homemaker was a modern one, she would have a carpet sweeper for use in-between times. If a house had a bare wood floor, such as the one in the Trail End ballroom, it had to be kept clean and attractive. This was accomplished through regular waxing and polishing. Before the advent of the electric floor polisher, getting a radiantly glowing floor was backbreaking work, a chore that usually had to be accomplished on hands and knees.

By 1926, the S. C. Johnson Company had developed an electric polisher which could, by spinning 2,100 times a minute, “burnish the wax to a wonderful, even, deep-toned luster.” Through the magic of electricity, floor polishing became so easy a child could do it:

It is easy now to have beautiful waxed floors in every room. All you do is to spread on a thin coat of Johnson's Polishing Wax. Then run the Johnson Electric Polisher over the floor and let electricity do all the work. This electric floor polisher runs itself – you don't need to push it or bear down on it – just guide it. It is ten times better and quicker than the old-fashioned hand methods. With it you can polish all your floors in the time it used to take to do a single room.

October, 1926 *Better Homes and Gardens* 29

"Look, Mother. I can polish too!"

IT is easy NOW to have beautiful waxed floors in every room. It makes no difference whether the floors are old or new—of wood, linoleum, tile or composition. And it matters not how the floor is finished—with varnish, shellac, wax or paint. Try the Johnson Wax Treatment on them.

By this new method all hard work is avoided and you are saved the bother and expense of frequent retouching. It will take only a few minutes. You don't need to stoop. It won't soil your hands. And your floors will glow with a new brightness and beauty.

All you do is to spread on a thin coat of Johnson's Polishing Wax. This cleans as it waxes. Then run the Johnson Electric Polisher over the floor and let ELECTRICITY do all the work.

**JOHNSON'S WAX
Electric Floor Polisher**

This Electric Floor Polisher runs itself—you don't need to push it or bear down on it—just guide it. It is ten times better and quicker than the old-fashioned hand methods. With it you can polish all your floors in the time it used to take to do a single room.

RENT IT FOR \$2.00 A DAY

From your neighborhood store or your agent you can rent this beauty-giving Electric Floor Polisher for \$2.00 a day. In one day you can make every floor a foundation of gleaming beauty on which your rugs and furniture will reveal new charm and value.

Telephone NOW and make an appointment to rent a Johnson Electric Floor Polisher for a day. Or buy one outright for your own exclusive use. The investment is small for so great a convenience.

S. C. JOHNSON & SON, RACINE, WISCONSIN
"The Floor Polishing Authority"
Crescent Laundry Building

JOHNSON'S POLISHING WAX
PASTE or LIQUID ~ CLEANS POLISHES PRESERVES ALL FLOORS

Vacuum Cleaners

Prior to the vacuum cleaner, the best device for dusting floors – be they wood or linoleum – was the dust mop. The best device for cleaning rugs, on the other hand, was the carpet

sweeper. By running these devices back and forth over her floors and rugs, the homemaker could pick up most surface dust and debris. But it was hard repetitive work that took up a great deal of time.

Inventors knew there had to be an easier way, and they worked on the problem for decades. Although the first American “suction cleaner” was patented in the 1860s – a hand-pumped, wood and canvas contraption invented by Chicago resident Ives McGaffey – it took another forty-plus years for a household-sized electric model to appear. In between, there were several attempts at introducing vacuum cleaning to homes and businesses both here and overseas. Nearly all, however had their downsides:

- 1875** Invention - Cleaner introduced with both suction and a brush roller
 Downside - Hand-cranked

- 1901** Invention - Englishman Hubert Booth invents a gas-powered suction cleaner
 Downside - Mounted on a horse-drawn wagon

- 1905** Invention - Regina introduces its first hand-pump model
 Downside - Took two people to make it work

- 1905** Invention - The first “movable” electric vacuum cleaner is introduced
 Downside - Weighed in at nearly 100 pounds

- 1905** Invention - Royal introduces an upright cleaner
 Downside - Hand-pump model requiring almost as much labor as a rug beater

- 1907** Invention - Jim Spangler makes a portable vacuum from an electric fan, a soap box, a broom handle and a pillowcase
 Downside - It was only available in Canton, Ohio (sold door-to-door by Spangler himself)

- 1908** Invention - Spangler improves his vacuum cleaner by adding a beater bar
 Downside - For Spangler, it was that he sold the ground-breaking patent to his wife’s cousin, William Henry Hoover

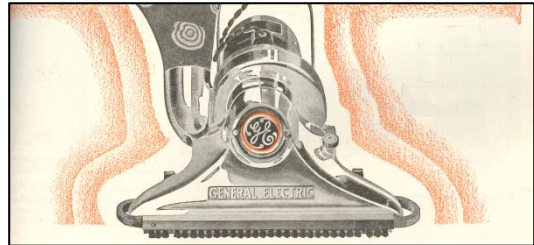
Once Hoover and others successfully marketed their way into the American home, homemakers were finally able to chase down every little bit of dust and dirt that might dare to besmirch their husband’s castle:

The vacuum cleaner, of course, has taken off the curse from sweeping and largely, too, from dusting. ... The vacuum cleaner ... is usable for moldings, tops of windows, curtains and rugs, obviating the dust-flying beatings which wear out not only the fabrics but the

housewife. Some people are too lazy to attach the tools made expressly for these special performances and so go on beating, not about the bush, but worse – on their delicate possessions.

It was considered a great personal failing if the woman of the house didn't take advantage of such excellent technology. The Western Vacuum Company told readers in a 1913 advertisement in *Cosmopolitan*,

Don't be a slave to dirt! Cleaning by vacuum (suction) has come to stay. It is now recognized as a positive necessity by the housewife having any regard at all for cleanliness, sanitation, or time and labor saving in her work.



In the late 1910s and into the 1920s, motors became smaller and vacuum cleaners became considerably lighter (a nine pound unit was available by 1915). By 1926, a small handheld vacuum had been introduced, thus making housekeeping even easier.

Achieving Home Happiness

That keeping the home clean was woman's work – and necessary work at that – was accepted as the proper way of things. As an early 20th Century Lydia Pinkham publication noted,

When a man comes home from work at night, he wants to find his home clean and comfortable, his supper ready, his children happy and his wife smiling a welcome to him. These are only natural feelings.

Not much had changed by the time the Cleanliness Institute made the following observation in 1930:

Of course our homes must be spic-and-span. That's what homes are for. Everyone knows that when woodwork and curtains and porcelain and glass get dingy, home happiness, too, may become less bright. And we can no more get along without fresh towels and sheets, and spotless table linen than we can put up with dirty clothing or unwashed bodies. Nevertheless, now-a-days there is something wrong with 'a woman's work is never done'.

Fortunately for the 20th Century housewife, partial relief from this household drudgery finally arrived in the form of electrically-powered appliances. The electric vacuum cleaner, refrigerator, washing machine, iron and stove were truly revolutionary in that they relieved the homemaker of the hardest, most back-breaking and time-consuming tasks of her day, allowing her the time and strength to be more than just a servant in her own home. As Josephine Wylie noted in 1930:

The homemaker has been quick to accept the new scheme of things. The release from so-called drudgery has given her more time to think about her job of homemaking in all of its aspects. Because she is less under the

thumb of the drudgery sort of work, she has more time to think about her home business, more time to stand off and view it objectively, more time to line things up in their relative importance. ... With dignity and importance attached to the job of running a household and the leisure time that has come as a result of modern homes, the woman in the home now takes on this role of a home-business woman. She knows that she is attached to one of the biggest businesses in the world, that she is manager of a very important unit of it, that it amounts to much more than cooking and sewing and housecleaning, that it is a job that takes thoughtful planning and work if it is to be well done, that it has its compensations just as does any other job on this earth.



While some thought the reduction of time spent in housework would result in laziness and sloth, advertisers such as the Walker Dishwasher Company sought to relieve this burden of guilt:

The desire to shun disagreeable work isn't plain laziness. Mothers have a right to employ their time and effort in the more fruitful and satisfying details of housework. Cooking [for example] is an art, but dishwashing is drudgery!

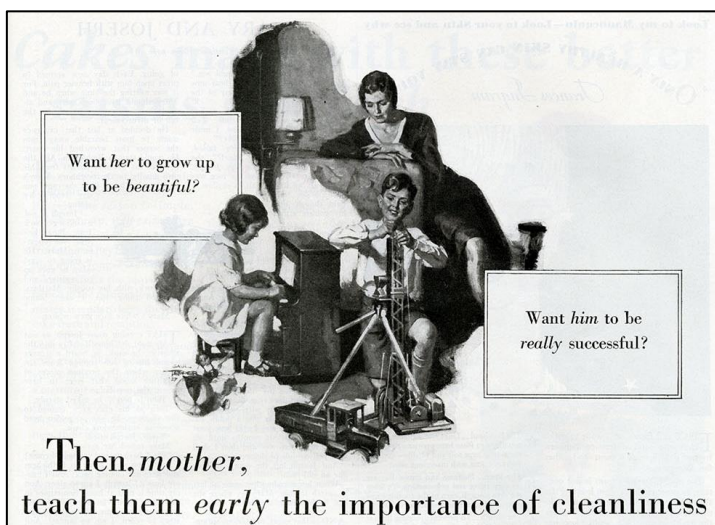
Raising the Bar on Cleanliness

While it is agreed that electric appliances considerably altered the life of the typical American housewife, few would agree that the changes were all for the best. Much of the hard labor could be done by machine, so one would assume that the development of washing machines and vacuum cleaners would mean less time spent doing housework. But not so! According to

researchers, the average homemaker in 1924 spent fifty-two hours a week doing her housework. Forty years later, the average American homemaker was spending fifty-five hours a week on housework – even surrounded as she was by “laborsaving” appliances. Why might this be? One reason: higher expectations. As one author noted:

People began to expect more from those who kept the house. For example, whereas once laundry was done once a week and clothes worn several days before being laundered, modern housekeepers may do laundry every day because family members wear an item only once before washing it.

In addition, the American homemaker became – and to some extent, still is – obsessed by a variety of “germ theories” stating that kitchens and bathrooms had to be “scrupulously clean” to prevent disease. While it is true that sanitary homes tend to be healthier homes, magazines such as *Good Housekeeping* and *Better Homes & Gardens* published article after article encouraging women to achieve an almost impossible degree of “domestic perfection.” Dirty was equated with Evil, while Clean became synonymous with Good. Instead of using technology to help meet society’s old standards, the homemaker now had to strive harder and work longer to meet new standards.



Between 1927 and 1932, the Cleanliness Institute worked with government agencies, medical departments, schools, and social service organizations to encourage the use of soap and water. They sponsored public service announcements on radio and published full-page advertisements in national magazines, encouraging the use of soap and water:

To every mother her own are the ideal children. But what do the neighbors think? Do they smile at happy, grimy faces acquired in wholesome play? For people have a way of associating unclean clothes and faces with other questionable characteristics. Fortunately, however, there’s soap and water. ‘Bright, shining faces’ and freshly laundered clothes seem to make children welcome anywhere – and, in addition, to speak volumes concerning their parents’ personal habits as well. There’s Character in Soap & Water.

What most consumers didn't know was that the Cleanliness Institute was established in 1927 by the Association of American Soap and Glycerin Producers, Inc. – in other words, soap manufacturers! As AASGP spokesman Roscoe C. Edlund said in 1930, "The business of cleanliness is big business."

Home Economist Elizabeth Hale Gilman wasn't convinced that Americans were obsessed with cleanliness; she felt that they just didn't want to be thought of as dirty:

Dust shows, as we say, on a bare floor; it lies under furniture and blows about in fluffs. If the floor is carpeted, that very same dust ... sinks into the carpet. If we really minded dust, we would mind it just as much buried in the carpet as rolling round in fluffs. But we don't mind dust, we mind being thought dusty.

Little Electrical Servants

Prior to the late 1800s, nearly every household with a dollar or two to spare employed some sort of domestic assistant – maid, cook, laundress, handyman – to ease the homemaker's burden. By the late 1910s, however, hired help became harder and harder to find. Single young men were heading off to war, single young women were going to work in offices and factories, and not many wanted to slave away at cleaning someone else's home. Those that did wanted higher salaries than homemakers were used to.

Fortunately, the arrival of affordable household electrical appliances coincided nicely with this decline in the number of women willing to work as domestic servants. "Little electrical servants" were seen as easier to manage than living ones. As one woman put

***Let The
"Little Electric Servants"
Do Your Work***

it, "A vacuum cleaner never asks for a raise, calls in sick or gets drunk." Many women preferred spending their household money on appliances and working the machines themselves rather than going through the effort of trying to find, hire, train, and keep domestic help:

Until very recently, I kept a maid. Then one day I told my husband I had decided to save the cost of our maid and put this money in the bank. He said it would be too much work for me – but it isn't. I discovered many little servants eager to help me for a wage of only one cent an hour or less. Now I enjoy my work. Why shouldn't I with a whole retinue of servants, each an appliance run by a little electric motor – always ready – always willing.

This was just as well, because many domestic servants did not appreciate the new technology. Contemporary writers concluded that servants "feared the machines as tools in a conspiracy" to force more work from them, to make them clean more often or accomplish more cleaning tasks per day.

An Appliance Revolution

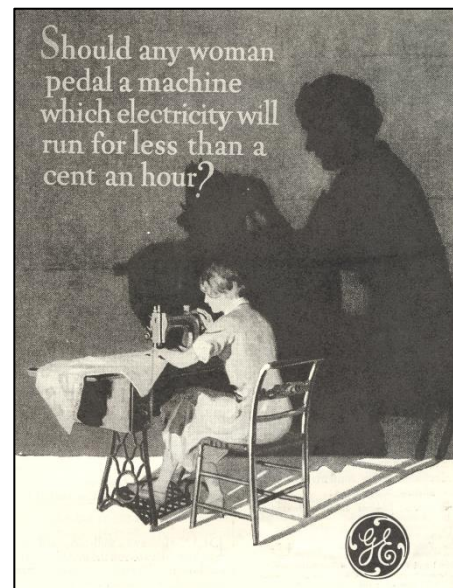
The kitchen and laundry were not the only rooms to receive the benefits of electrical appliances. Bedrooms, bathrooms, workshops and family rooms were targeted as well. Some appliances, like the sewing machine, were primarily labor-saving devices. Others were purchased for sheer enjoyment, as pointed out by *Better Homes & Gardens* in 1929:

Today, homes are equipped with electric irons, washers, ironers, vacuum cleaners, curling irons, lamps ... woodworking machinery, toy trains, motion picture machines, radios, cooking-ranges, refrigerators, soldering irons, and many other devices – all operated by electricity.

Sewing Machines

Shortly before World War One, the reliable treadle sewing machine – used by countless thousands of American women – was finally electrified. Unfortunately, until the late 1920s, not enough homes were wired to make the electric sewing machine a common household appliance. Plus, these early machines could be a little scary – as writer Mary Brooks Picken noted in 1929: “At first women were frightened or annoyed with electric machines because of the vibration. One had a feeling of anxiety that the machine might fly to pieces.”

By the late 1920s, however, the electric sewing machine had been greatly improved and contained many excellent features that homemakers found attractive:

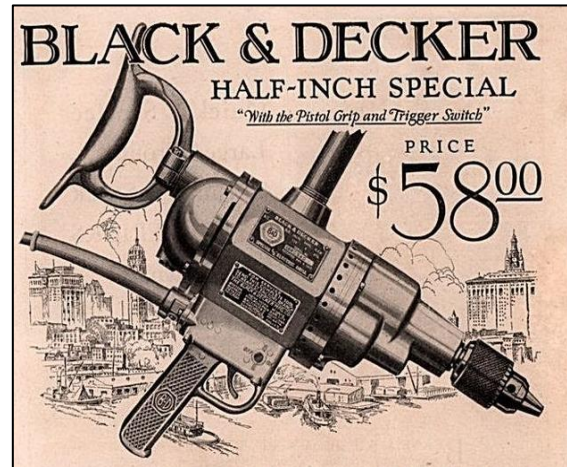


Find what a modern Singer will do. It is so smooth, so quiet, so easy to operate, so swift in the completion of each task that sewing itself becomes a delightful pastime. ... The electric machine speeds over the seams like the magic of Aladdin. There are no aching knees from treadling, not a crick in the back, nor a sign of tired eyes, because the new machine allows you to ... sit with ease and comfort at the machine. The convenient light at the back throws the light ray on the presser foot, just where it is needed, and so you sew on gloomy days, in dark corners, at night, or in the daytime, with perfect comfort. ... Many physicians of reputation have prescribed sewing the modern way as a relaxation.

Appliances for Men

Most advertising for electrical household appliances was directed toward the female homemaker. It was assumed that, although the entire family would benefit from an electrified kitchen and laundry room, it was the woman who would actually use the appliances. Even in such male-oriented magazines as *The Country Gentleman*, most of the advertisements for electrical devices - milkers, mowers, separators and incubators - showed them being operated by women.

The power tool was one of the few modern electrical devices marketed almost exclusively to the adult male. While the woman was expected to clean the family home, it was the man who had the responsibility for keeping it in good repair. It was also expected that the man of the house would, when time allowed, build cupboards, furnishings and other items for the home. As author Frank Solar noted in 1928, electricity was as great a time-saver in the home workshop as it was in the rest of the house:



Since the automobile has taken the place of the horse, the vacuum cleaner substituted for the broom, and the electric refrigerator is cooling our ice boxes, changes have come in our home workshop. ... Today the home worker screws a plug in the light socket, turns the switch, and a little machine on his bench does his sawing, planing and turning.

As mentioned, most electrical appliances were designed almost exclusively for use by women. Some items, however, were targeted toward those who gave gifts to men:

- *For Xmas, give him a complete set of home working tools. Red Jacket electrically driven tools turn out work like magic. Small and compact enough for portable use and so inexpensive that any man or boy may have one. Electrically driven tools designed for the private use of men who appreciate handy tools at home.*
- *Dad's comfort often depends on the ease, quickness and convenience of obtaining water of the right temperature for his shave. No device combines these three essentials to such a high degree of completeness as a GE Electric Shaving Mug. Attach it to any ordinary electric lamp socket – and Dad can have water of the right temperature in less than a minute.*

- *Dad could probably use a cigar or cigarette lighter, an electric razor, or a good reading lamp, or perhaps, if he had the chance, a small cleaner for the upholstery of the car.*

Lenore Gaskill Rowe, writing about electricity and home lighting in 1927, believed that Dad, Brother or Son could be happy with just a simple light in the bathroom: “Good bathroom lighting,” she noted, “is good-humor insurance. It helps the man of the house to finish speedily his daily grind of shaving and start the day right.”

Radio & Television

Although Marconi and Tesla did wonderful work pioneering the use of radio in the 1890s, it wasn't until the 1920s and 30s that it became a staple in the American home. During World War One, civilian radio activities were suspended when the government took over the industry. Afterwards, AT&T, General Electric, RCA and Westinghouse all got into the broadcasting business. By the end of 1922, there were over 500 broadcast stations scattered across the country. Most played only to local audiences – including adolescent and teenage boys fascinated by the technology. As Tom Morgan noted in *The Country Gentleman* in 1922,

Radio receiving stations are springing up everywhere. ... Any schoolboy possessed of a medium amount of mechanical skill can construct one that will work with uncanny precision. ... Up garret in the farmhouse, out in the barn loft, on the roofs of buildings tall and short, almost everywhere, eager lads, by means of dinky little mechanisms wholly or in part made by themselves, are listening in on concerts, lectures, orations, and so forth, originating hundreds of miles away.



Some of these teens may have been inspired by Joe and Bob, the heroes of the *Radio Boys* book series introduced in 1922. Authored by John W. Duffield, the books followed the radio-related adventures of the two lads, from winning a prize for their first wireless receiver to helping fight a forest fire through the use of radio communications.

Manville Kendrick had a 1921 Kennedy 281 Short Wave Receiver – one of the many battery-powered units available during radio's early days. Because it did not have a built-in speaker, the Kennedy required the use of headphones. Later models, such as the 1929 Atwater-Kent All-

Electric Set, contained speakers and could be plugged into a regular outlet, bringing the magic of radio to an entire room:

Atwater Kent gives you the thrill of radio at its best. What a world – this new, ever-changing world of radio entertainment. And how easily the door swings back and lets you in. Snap a tiny switch, touch the Full-Vision Dial – there you are. No batteries to think of. More than you expect of radio at less than you expect to pay.



During its early years, most famous musicians refused to perform on commercial radio. They believed that listeners were not sophisticated enough to appreciate truly fine music. That might be true, said musicologist Sigmund Spaeth in 1929, but it didn't really matter:

An American audience of almost any kind today demands first-class music and gets it. No longer does the sacred name of the Metropolitan Opera Company guarantee a success with average listeners. They know nothing about music, but they know what they like. This is even more true of the radio. The faithful fans are almost sure to tune in when one of the big stars is announced.

In 1930, one of America's cultural icons, composer John Philip Sousa, summed up the future of radio in ten little words: "Radio is a good thing and has come to stay." By that time, over forty-five percent of American homes had a radio – making it America's first true "mass media."

While it didn't catch on until the 1950s, a new means of entertainment and information - television - made its debut in the 1926, when Scottish inventor John Baird gave the world its first public demonstration. The next year, Bell Labs gave a similar demonstration in New York, featuring Secretary of Commerce Herbert Hoover speaking from Washington, D.C. These early "scanning disk" televisions were a far cry from the Plasma and HDTVs of the 21st Century, but they were an eye-opening experience for those lucky enough to have observed them:

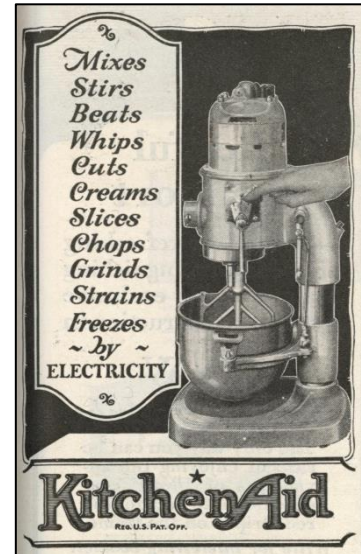


At the present, the seeming miracle of seeing by wire and wave length was not at a stage where it could be put to such general use as the telephone. ... but the feat of television itself has been accomplished and indications are that it is likely to have a real place in the world's work of distant communication.

Consumer Appliance Timeline

The basic science of electricity was known for many years before Thomas Edison and others put it to practical use in the late 1800s. Once Edison and his associates broke the barrier between theory and application, however, a flood of new, electric-powered appliances and labor-savers washed over the country! Eager consumers couldn't wait to purchase them, and men like Edison couldn't wait to sell them. "Anything that won't sell," he said, "I don't want to invent. Its sale is proof of utility, and utility is success."

The first third of the 20th Century saw the creation of many home devices, from flashlights and batteries to refrigerators and garbage disposals. Most of these inventions should be familiar to you. What might astound you, however, is how early many of them were created. Who knew that the electric doorbell has been around for nearly 200 years, or that the KitchenAid mixer is about to celebrate its one hundredth birthday!



1800 - 1879

- 1800** Electric battery invented by Alessandro Volta
- 1820** First electric light demonstrated by Warren de la Rue
- 1821** Electric motor invented by Michael Faraday
Electric doorbell invented by Joseph Henry
- 1854** First light bulb invented by Heinrich Goebel
- 1865** Patent for electric coffee percolator issued to James Nason
- 1875** Light bulb patented by Woodward & Evans
- 1879** First practical incandescent light bulb demonstrated by Thomas Edison

1880 - 1899

- 1880** First electric elevator constructed
- 1881** First commercially successful dry cell battery invented by Carl Gassner

- 1882** Electric Christmas lights introduced by Edward Johnson
Electric iron patented by Henry Seely
- 1885** Electric mixer patented by Rufus Eastman
- 1886** Electric dishwasher invented by Josephine Cochrane
Electric fan invented by Schuyler Wheeler
- 1889** Home electric sewing machine introduced by Singer
- 1890** First electric hair dryer patented by Alexandre Godefoy
- 1891** Electric stove invented by Carpenter Electric Heating Co.
Alternating current (AC) introduced in U. S.
- 1893** Electric toaster invented
- 1896** Electric stove first patented (not for home use)
- 1898** Battery-powered flashlight invented
- 1899** Rechargeable battery invented by Waldemar Jungner

1900 - 1909

- 1900** Electric toy trains invented by Joshua Lionel Cowen
- 1901** Alkaline battery invented by Thomas Edison
Electric vacuum cleaner invented by Hubert Booth
- 1902** First electric air conditioner in operation in Brooklyn
- 1903** First electric washing machines patented
Lightweight electric iron introduced by Earl Richardson
Flashlight patented by Conrad Hubert
- 1905** First movable vacuum cleaner invented; weighs 92 pounds; doesn't sell well
- 1906** Permanent wave machine invented by Karl Nessler
- 1907** Electric amplifier invented by Lee De Forest
- 1908** Lightweight portable upright electric vacuum cleaner invented by James Spangler
Electric coffee percolators first appear in American stores
Spangler's electric vacuum cleaner patented by William Henry Hoover

First electric-powered washing machine, the "Thor," introduced by Alva Fisher
Standing mixer patented by Herbert Johnson

1909 First American-made electric toaster introduced

1910 - 1919

1910 Hotpoint introduces the first electric stove

1911 Single-beater electric mixer patented by Hamilton Beach
Waffle iron introduced by General Electric
Neon lights invented

1913 Electric dishwasher introduced by Walker Brothers
Bissell introduces 33-pound Electric Suction Cleaner
First in-home electric refrigerator introduced by General Electric

1915 Electric clothes dryers appear on the market
Oven thermostat developed
Nine-pound vacuum cleaner introduced by Franz

1916 Kelvinator introduces its first electric refrigerator
First electric lawn mower introduced
First radios with tuners allowed listeners to change stations

1918 First refrigerator with automatic controls introduced by Kelvinator

1919 Pop-up toaster with built-in timer invented by Charles Strite
Stand mixer for the home introduced by KitchenAid
Cone-shaped Christmas lights introduced by General Electric

1920 - 1931

1920 More than 200 different brands of refrigerators sold in U.S.
Airway introduces vacuum cleaner with disposable bags
First commercial radio broadcasts with regularly scheduled programming heard

1922 Electric blender invented by Stephen Poplawski
Electric kettle introduced
Over 3 million electric irons have been sold since 1912
Radios appear in 3 million American households

- 1923** Frigidaire introduces electric “self-contained” refrigerator
Cathode ray tube for television invented by Vladimir Kosma Zworykin
- 1924** Air conditioners first used for human comfort rather than industrial cooling
Loudspeaker for music invented by Kellogg & Rice
Spin dryer appears on the market
- 1925** Frosted light bulbs first produced
- 1926** Toastmaster’s pop-up toaster invented in 1919 finally goes into production
- 1927** Electric in-sink garbage disposal introduced
Electric iron with temperature control introduced by Silex
Quartz-powered clock developed by Warren Marrison
Experimental fluorescent lamp patented
Monitor Top refrigerator introduced by General Electric
GE introduces first in-home television receiver
- 1928** First air conditioners for home use introduced by Carrier
Electric “Mixmaster” patented by Sunbeam Corporation
Improved electric permanent wave machine patented by Marjorie Joyner
Over 45% of American homes have a radio
- 1929** Electric shaver introduced by Jacob Schick
- 1930** First plastic vacuum cleaners introduced
- 1931** First television broadcasts made in U.S.
GE introduces first room air conditioning unit
Henry Ford presented with one millionth GE Monitor Top refrigerator
Electric can opener introduced



© 2020 – Trail End Guilds, Inc. & Trail End State Historic Site

All Rights Reserved

For more information, visit www.trailend.org