Fireplaces: How Innovation Has Kept the Home Fires Burning

“I say to myself that I shall try to make my life like an open fireplace, so that people may be warmed and cheered by it and so go out themselves to warm and cheer.” – George Matthew Adams

Fireplaces warm our homes and our hearts. According to the 2016 Survey of Construction conducted by the Department of Housing and Urban Development, over half of new construction includes at least one fireplace. In the Midwest, approximately 80 percent of new homes have fireplaces. Although today’s fireplaces are more aesthetic in appeal, they do provide warmth and some utility in the event of a power outage. History tells the story of the innovation of fireplaces progressing from a primary heat and cooking source to modern day fireplaces. (Continued on page 7)

The Modern Kitchen

The homes in McLean County range from those built in the 19th century to the newest homes built in the past decade. We date the modern kitchen from the first decade of the 20th century. Over the decades, the kitchen changed from a female dominated work space to the family gathering space we now enjoy. The development can be said to fit into three different “eras” leading up to the present day kitchen. (Continued on page 2)
1889 – 1923 Science is applied to the Kitchen

Before the 20th century, kitchens were rooms of all work. Wives and daughters or servants cooked, sewed, and laundered in the kitchen. The “kitchen” was often made up of several rooms, including the cellar, which was a major food storage location. Pantries held other foodstuffs, and there was essentially no storage in the kitchen. Think about the David Davis Mansion kitchen and you will remember a typical, although exemplary, Victorian kitchen. The Victorian kitchen had no ornamentation, because kitchens were subject to large amounts of cooking refuse, soot and dust. All aspects of cooking, including cleaning fowl and fish, happened in the kitchen. Wood and coal stoves spewed ash and soot. Water had to be brought into the house by buckets. Kitchen wall surfaces were not necessarily any different than the walls in the rest of the house and were difficult to clean. Ice boxes sat in the back of the kitchen far from the heat of the oven and near an outside ice door where deliveries could be made.

Although domestic science had been a field of university study since 1871 in Ames, Iowa, no methodical work had been done to change housework. Housework was not valued for many reasons, one of which was that no formal training was required to be a housewife or housekeeper. With the Industrial Age, efficiency became more important in manufacturing, and women studying domestic or household economics began to apply the principles of industrial efficiency to the home. In 1889, Ellen Swallow Richards was a sanitary chemist and one of the primary developers of the field of home economics. By applying the principles of efficiency to household work, they elevated housekeeping to a science in the eye of the public. This efficiency would alleviate the back-breaking work that women performed in inefficient kitchens.

In the early 20th century another expert, Christine Frederick, ran time and motion studies to determine the best arrangement for kitchens. She wrote popular columns detailing her research for the Ladies Home Journal in the 1910s and at one time received 1600 letters in one month asking for her advice. (Continued on page 3)
Experts recommended smaller kitchens that were easier for a woman to work alone, by allowing her work to flow easily from one work center of the kitchen to another; very similar to the triangle we refer to when planning a kitchen today. The diagrams above are those of Christine Frederick’s Household Engineering in 1919. Experts like Frederick wrote out precise rules for placement of tables, sinks, and stoves for efficient and sanitary work.

Locally, kitchen efficiency was the subject of lectures given by the McLean County Home Bureau, the U of I Short Course for Housekeepers, and the domestic science departments of ISU and Wesleyan. In 1916 the U of I had a household science train car that was used to educate women throughout central Illinois in kitchen efficiency. It was a regular Pullman car, without seats or bunks, but was fitted with the latest and best kitchen equipment and test kitchens. At U of I, scientists were running time and motion studies to find the most efficient ways of placing furnishings and equipment in the kitchen.

Introduced in 1906, The Hoosier cabinet was said to save the average housewife up to 2000 steps a day! The specialized storage compartments, including fitted glass jars and an enameled worktop of the Hoosier created an efficient work space in any kitchen.
Between 1901 and 1920 over two million Hoosiers were sold. That meant that there was a Hoosier in one out of ten kitchens in America. However, no other major labor saving devices had been introduced before 1920, and before WWI only 24% of homes had electricity, even in the cities.

1924 – 1945 Electrification of the Kitchen

During this period, the size of kitchens remained small and changes were reflected in new technology. Kitchen designs in Ladies Home Journal and other magazines showed kitchens with tiled walls, linoleum floors and porcelain sinks. For sanitary reasons, every surface in the home had to be easily cleanable. The continuous coverage of linoleum, with no cracks or seams, guarded against insects and vermin. Tiled walls were easily cleaned, unlike painted plaster. Most noticeably, electric refrigerators were now located within the kitchen as opposed to the icebox, that had been placed in a hall near the back door of the house (for ease of ice delivery and distance from heat producing appliances.) Floor plans for kitchens were more varied, and more built in cabinets were used. Color was considered essential to the kitchen, possibly because color can be cheaply added to a room through paint or small appliances.

The bungalow had popularized the idea of a small, cozy home that was easy to clean and manage. The housewife who had no servant did not have time to maintain a large Victorian home or an outdated kitchen. During this period, sometimes called the Silent Generation, the kitchen was still shut off from the rest of the house. Servants were not available due to the prevalence of young women entering the work market outside the home (rejecting servant work) and the Johnson-Reid Act of 1924, which strictly regulated the number of immigrants (the best source of maids).

Early in the 1920s Frank and Lillian Gilbreth (famous for “Cheaper by the Dozen”) were popular speakers and writers on factory efficiency, but after Frank Gilbreth’s death in 1924, Lillian found it difficult to continue the same work due to the fact that most of their publications were made in his name and due to in-built prejudices against women as authoritative voices. Lillian Gilbreth was a psychologist and in a effort to recreate her
professional profile, she wrote two books, *The Homemaker and Her Job* and *Living with Our Children*, which revitalized her career by shifting her focus to the home. Her book on homemaking taught women how to perform their own efficiency studies so that they could make their own decisions about work in their kitchens. Gilbreth was then hired by the Brooklyn Borough Gas Company to design kitchens and promote gas-run equipment. Her *Practical Kitchen* was introduced at a Women's Exposition in 1929 on behalf of the gas company.

Her *Practical Kitchen* introduced the “circular workplace,” which led to the current “kitchen triangle” and the concept of a kitchen “management desk.” Her management desk contained the tools needed for managing the home: a telephone, adding machine, reference books on children, radio and charts for the organization of household chores. Two years after introducing this concept, Gilbreth was asked to design management desks for the IBM Corporation.

The later 1920s and 1930s were dominated by the economic upheaval of that time and then the early 1940s were dominated by wartime shortages. Housewives were urged to work efficiently and to produce food efficiently. During the Depression works projects helped to modernize kitchens by bringing electricity even to rural communities. But the focus in the kitchen was now on “making do” and simplicity. Shortages and “modernism” were compatible ideals and the kitchen became simpler and less decorated. Women were also saddled with new ideas about their responsibilities to raise happy, well-adjusted children, as opposed to the obedient, silent child of Victorian times. Thoughts about the kitchen included making it a pleasing place to work and support the mental well being of a family.

**1946 – 1964 The Baby Boomer Generation**

With the end of the war, an economic resurgence took place, men returned from war, and women were urged back into the kitchen. Women were expected to
once again take satisfaction from the efficient operation of their home, rather than a job in a factory supporting the war effort. The kitchen even became a propaganda tool during the Cold War.

At the 1959 Exhibition of Science, Technology and Culture, the U.S. countered the Russian display of the Sputnik in New York with the "Trojan Kitchen" in Moscow. Nixon showed Kruschev the model kitchen, with all the modern American conveniences that communist Russia had never seen or imagined, challenging him to question the dominance of a capitalist market over the communist market. A heated, impromptu debate took place in that kitchen, with Nixon and Kruschev both pointing fingers and arguing nuclear options. (www.history.com/this-day-in-history/nixon-and-khrushchev-have-a-kitchen-debate ) We might not have made it to space, but we had beautiful kitchens!

In Life magazine’s “Trade Secret House of 1953” homeowners were given a choice of kitchen layouts – a more traditional closed off kitchen or a more open kitchen design. The open design was favored over the closed design by most readers pointing to the present trend of wide open kitchens. In the photo of the Life house above, note that there is no door way between the living room, dining room or the kitchen (floor plan below). In the Levittowns, the kitchen was placed to the left of the front door, rather than the back of the house, moving the kitchen into the
forefront of family life. As the “work” of the kitchen grew, the space of the kitchen grew, until modern kitchens are nearly the size of the largest Victorian kitchens that made room for a staff of cooks and maids. Steps are no longer counted because size is needed for guests, children, animals, islands and ever larger appliances.

Fireplaces: How Innovation Has Kept the Home Fires Burning

(Continued from page 1) In the 12th century medieval times, fireplaces were used for heat and cooking. Hoods were used over fireplaces to contain smoke and direct it up the chimney. It was during this time we started to see fireplaces placed against walls. Homes with more than one story created a need to heat the second story. The wall allowed the first and second floors to share a common chimney.

The 14th and 15th centuries brought changes in construction and craftsmanship. Modern European materials included stone and marble. Still primary heat and cooking sources, the new wider and deeper walk-in designs increased the functionality.

Similarly, in America, early fireplaces in Dutch settlements were deep walk-ins, wider than tall. English settlers in New England and the mid-Atlantic had colonial homes with central chimneys and multiple flues that could heat several rooms on a floor during the cold winter months. In contrast, Southern homes placed fireplaces on far ends of the home to keep the home cooler in the summer. Mantels didn’t appear on American fireplaces until the 1800s.

Hoods began to phase out over the next centuries as more coal was used. Firewood was scarce as increases in population led to more building. Woodlands were cleared as consumption of wood for building material and fuel increased. As a result, prices inflated to the point common people could not afford wood. Coal, on the other hand, was plentiful and affordable. However, coal created black smoke that needed to be vented directly through the chimney rather than collected in the hood first.

To remediate this problem, Count Rumford redesigned the firebox inside the fireplace to make it smaller and more shallow. This improvement radiated more heat into the room while drawing smoke up and out to prevent backdraft. Or, in his words, to “remove those local hindrances which forcibly prevent the smoke from following its natural tendency to go up the chimney.” (rumford.com) An added benefit of the design was the shallowness
enabled fireplaces to fit into the wall instead of being attached to the wall. His designs are still reflected in today’s modern fireplaces.

As mantels gained popularity in the 18th century, the style of the Adams Brothers influenced upper and middle class home décor in England. The Adams Brothers, John Robert and James, were Scottish architects who carried their design throughout the entire décor in the room, including the fireplace, walls, ceilings, furniture and flooring. Their neoclassic style featured medallions, vases, urns, vines, dancing nymphs and classical Roman style. The Adams Brothers’ influence can be seen in American Post-Revolutionary War Federal style designs. Additionally, they influenced the Regency and French Empire designs.

Robert Adams gained fame for creating the first quick process for fireplace production in order to meet the needs of the working class. As the Industrial Revolution hit in the 18th century, cities grew and the working population increased. Homes were mass produced quickly and sometimes shoddily to meet the growing demand for working class homes. Robert Adams created the Adams Composition which facilitated the mass production of fireplaces by casting the compound in molds and applying over wooden frames. The mantels were then given a decorative finishing with paint, gilding or glazing.

As it had in England, Industrialization in America resulted in scarcity of wood in areas. Likewise, high prices led to the use of coal in the place of wood. Changes in the fuel sources led to changes in fireplace grate designs. They became smaller to hold coals in baskets. More demand led to mass production of fireplace grates. This in turn led to standardized sizes of fireplaces.
In 1742, Benjamin Franklin, in an effort to improve safety and efficiency of fireplaces, invented his Pennsylvania Fireplace, more commonly known as the Franklin Stove. His stove used less wood than traditional fireplaces that contained the fire in the cast iron box. Although popular, the stove design was flawed in that it moved the smoke out the bottom of the stove rather than letting it rise naturally to the top. In the 1780s, David Rittenhouse improved the design by adding an L-shaped chimney and calling it the Rittenhouse Stove. Unfortunately, Rittenhouse’s stove didn't get the name recognition it should have and is now commonly called the Franklin Stove.

Fireplace designs flowed from Georgian to Victorian. Victorian fireplaces introduced over mantels and columns. From 1837-1901, William Morse’s Arts and Crafts Movement prevailed and designs were influenced by nature. Beautifully crafted Art Nouveau and mottled tiles added new details to this time period. President Theodore (Teddy) Roosevelt is also credited with inspiring the back to nature movement by using river rocks and stones as fireplace materials. Craftsmanship returned and flourished post-Industrialism as a people grew tired of mass produced products.

Teddy Roosevelt wasn't the only President Roosevelt to have an impact on fireplaces. President Franklin D. Roosevelt and his Fireside Chats are credited for making the fireplace a gathering place in the family home. He broadcast his first Fireside Chat on March 12, 1933 to provide information and reassure the public during uncertain times.

For the next 11 years, American families sat around the fireplace with the President. Interestingly, the President’s address was not delivered fireside but rather from a desk.

Today, as we gather fireside with family and friends, we can reflect on our inventive forefathers’ contributions to our modern day fireplaces. Their innovative designs carry on today keeping us safe and toasty. May this fill you with warmth and cheer!

By Deanna Stockweather
Bloomington Cookbook, 1902
Published for the benefit of the Second Christian Church

Sausage with Apple Sauce from L. H. J.
Let sausage simmer in boiling water in frying pan 15 minutes; drain and let brown. Make a syrup of 1 cup each of sugar and water. Core, pare and slice in rings 4 or 5 apples; cook the rings, few at time, in syrup until tender, turning often to retain shape. Arrange around the sausage, one overlapping the other and serve hot.

Planked Fish from Mrs. Willis Harwood
Heat a hard wood plank very hot; see that board is smooth and perfectly dry – do not grease it; put fish on, skin side down; brush with melted butter; salt and pepper; bake 30 minutes. Mash boiled potatoes; add 1 tablespoon butter, 4 tablespoons hot milk; 1 teaspoon salt; beat light; press into fancy shapes in pastry bag; return to oven until potatoes brown. Serve on plank.

Cream Celery Soup from Mrs. Frank Evans
2 cups cut celery; cover with water and let simmer 30 minutes; strain or press through colander. 1 quart milk on fire; rub together 1 ½ teaspoons butter and 3 teaspoons flour, and stir into the milk; add celery, teaspoon salt, dash pepper and serve.

Baked Sweet Potatoes in the Half Shell from Mrs. J. C. Stillman
Select shapely sweet potatoes, of even size; wash and scrub carefully; bake; cut in halves lengthwise; remove the pulp from the skins and pass it through ricer. Season with salt, butter and cream, beaten until smooth, and refill the skins with mixture. If desired, dust tops with powdered sugar.

Sugar Cookies from Mrs. W. F. Woodard
1 cup sugar; ¾ cup butter; ¼ cup sweet milk; 2 eggs, well beaten; 3 teaspoons baking powder, pinch of salt, teaspoon lemon; flour to roll out; sprinkle with sugar. Bake in quick oven.

Ginger Cookies from Mrs. A. W. Smith
2 cups sugar; 1 cup butter; 1 cup lard; 2 cups New Orleans molasses. Put on stove and let boil. Add 2 tablespoons soda; 2 tablespoons of ginger. Let cool. Add 4 eggs; flour enough to mix soft. Bake in quick oven.

Indian Pudding from Mrs. Ellen H. Espey
1 egg; 1 pint sweet milk; 1 ½ cups corn meal; 1 ½ cups flour; tablespoon molasses; teaspoon soda; steam 2 hours.
Sauce – Take 1 pint sour cream, beat well; then sweeten a little with brown sugar.