Product Evolution

Behind-the-scenes look at the evolution of everyday products

Did you ever wonder how the essential products you use on a daily basis came to be? What was happening in the world that spurred Kimberly-Clark on to invent new-to-the-world products such as facial tissue, paper towels, toilet paper on a roll, feminine pads and disposable training pants? Why were disposable diapers invented and what role did Kimberly-Clark have in improving their use? How did all these amazing products become such an integral part of the fabric of our lives?

The answers are quite extraordinary and surprising. For instance, did you know that the material used to develop Kleenex tissue was originally intended for use as a filter for gas masks in World War I? Or that resourceful Red Cross nurses used bandage material as sanitary pads during their menstrual periods? While Kimberly-Clark didn’t invent the disposable diaper, we did develop several key innovations that have become standards in the industry. Read on to discover the stories behind these fascinating products.

No more washing diapers
Story of disposable diapers
Learn more

One teacher’s fight against germs
Story of paper towels
Learn more

Cotton substitute improves women’s lives
Story of feminine sanitary pads
Learn more

Protection you can throw away
Story of facial tissues
Learn more

Helping babies become big kids
Story of training pants
Learn more

The roll that changed history
Story of toilet tissues
Learn more
The need for diapers has been around since the beginning of history. Throughout the ages, people have created their own versions of diapers using natural resources such as milkweed leaf, animal skins, packed grass and moss. While there’s no record of how often these makeshift diapers were changed, it is widely believed that in some cultures it was no more than once every three or four days. In colder regions, infants were often bound up in blankets that kept them warm and acted as primitive diapers. In warmer tropical climates, diapers were rarely used. Mothers tried to anticipate their baby’s bowel movements and took them outside away from the house to avoid messes.

It wasn’t until the mid-nineteenth century with the advent of cheap manufactured cotton fabrics that cloth diapers began to emerge. Diapers were typically rectangular in shape and were folded and fastened on infants as garments or undergarments. Always seeking ways to protect their children, many moms would add their own twist to the diaper phenomenon. Some would place natural absorbing materials such as moss or peat inside the diapers to help collect waste and some would simply put two or more diapers on their child to limit leakage.

Disposable Diapers Emerge
Disposable diapers were developed simultaneously in Europe and North America between the 1930s and 1950s, with most progress taking place after World War II. Technological advances such as the development of more soft and absorbent materials propelled the disposable diaper to a new level. As the new product received increased exposure to a variety of markets including pharmacies, hospitals, medical supply houses and department stores demand gradually began to grow. Still, manufacturers perceived them as a specialty product with limited potential due to their high cost relative to cotton diapers.

K-C Enters Disposable Diaper Category
Kimberly-Clark had worked on disposable diapers for years before introducing the Kimbies brand in 1968. Kimbies featured several key innovations that became industry standards, including a triangular shape that was uniquely contoured to a baby’s body, a new absorbent material (fluff pulp instead of tissue pulp), a spun-bounded polypropylene liner and adhesive tape fasteners. However, the brand still wasn’t perfected and many consumers complained that, when their child was upright or playing, the diaper sometimes leaked.

Expanding Into the Premium Diaper Market
K-C’s leadership determined that Kimbies did not have a long-term future. They needed to do something completely new or get out of the business. K-C researchers had been quietly working on a rectangular-shaped diaper. Introduced in 1977, the popular-priced line was called Kleenex Super Dry diapers. At the same time, K-C researchers were aiming for the emerging premium-priced market with a new product called Kleenex Huggies, which was introduced in 1978. It was an hourglass shaped diaper that featured elastic at the legs. By 1982, Huggies was distributed nationwide and a year later, Huggies with refastenable tapes was the leading premium diaper.

Evolving to Meet Babies’ Needs
Over the years, a steady stream of innovative improvements designed to provide extra comfort and a more natural fit, as well as to reduce diaper rash and improve skin wellness, has enabled Huggies to maintain its market leadership. A few of those product enhancements included the launch of Huggies Supreme diapers in 1994, Huggies Baby-Shaped Fit diapers, Huggies Overnites diapers, and the recent introduction of two new supreme diapers under the Huggies brand - Huggies Supreme Gentle Care and Huggies Supreme Natural Fit diapers. Huggies Supreme Gentle Care diapers offer new cottony-soft materials called Cuddleweave to provide a comforting and secure feeling that is extra gentle for new babies. In addition, its preemie and newborn sizes are the only diapers in the market with a new U-shaped umbilical cord opening offering the most-gentle protection for a younger baby’s sensitive belly button area. Huggies Supreme Natural Fit, introduces Hugflex, a new hourglass shape so the diaper fits and feels more natural to older babies.

To learn more about Huggies products and to read informative articles and insights from moms and other experts on pregnancy and parenting, visit the Huggies Baby Network at www.huggiesbabynetwork.com or www.huggies.com.
In 1907, a mild epidemic of colds hit the Philadelphia area. A local teacher blamed the outbreak on the fact that all her students used the same cloth towel, which she believed was the source of infection. To protect her students from spreading any more germs, this resourceful teacher came up with the novel idea of cutting heavy copy paper into squares and using them as individual towels.

Arthur Scott of the Scott Paper Company heard about the teacher's ingenious solution and it gave him an idea. Around that time, the company had purchased several parent rolls of a new type of creped tissue for product experimentation. One carload delivered to Scott was so heavy and thick that it couldn't be cut into rolls of toilet tissue, Scott's dominant consumer product at the time. Scott ordered the paper to be made into rolls of towels and perforated into individual 13 inches by 18 inches sheets. The paper towel was born! Originally called Sani-Towels, the new product was later renamed ScotTissue Towels.

Scott Targets Home Market
In 1931, Scott expanded its papertowel business to the home market with the introduction of rolled ScotTowels, creating a whole new grocery category. Critical to the success of ScotTowels was the creation of the towel holder, which Scott also sold. Paul Brown, a Scott salesman in the 1930s, compared trying to sell towels without a holder to selling razor blades without a razor.

Roll towels were targeted for use in the kitchen. They were advertised as attacking illnesses acquired from the use of linen towels and even referred to the threat of "social diseases." Scott changed this approach in 1933 to stress economy, multiple uses and eventually absorbency - described as "wet strength." The advertising strategy worked and over the next several years the Scott Paper Company became the world's leading manufacturer of paper towels. In 1995, Kimberly-Clark acquired Scott Paper.

Evolving to Meet Consumers' Needs
Over the years, there have been many improvements to the Scott Towels brand including designer prints, revolutionary ridges that absorb faster, mega rolls and licensing agreements and partnerships with Disney and NASCAR.

Kimberly-Clark has come a long way from the initial Scott Sani-Towels product. Today, in addition to Scott Paper Towels the company also manufactures and distributes several other well-known disposable paper towel brands in more than 25 countries. A few of these global brands include Viva, Scottex, Page, Fiesta, Velvet, Tela, Sopal in, Petalo and Vogue.

To learn more about Scott Towels products, visit www.scottbrand.com.

Source: Shared Values: A History of Kimberly-Clark
With World War I raging in Europe and provoking cotton shortages, Kimberly-Clark executives realized that the Cellucotton developed by their researchers could be used as a cotton substitute for a variety of purposes. Ernst Mahler, head of the research, technical and engineering department, traveled to Washington D.C. to convince the U.S. surgeon general that its new product Cellucotton would be an ideal substitute for surgical cotton dressing in treating war wounds. K-C researchers had discovered that Cellucotton, creped cellulose wadding found on a fact-finding mission to Europe and later refined by K-C researchers, was five times more absorbent than cotton and, when mass produced, could cost half as much.

**Nurses Discover New Use for Bandages**

Mahler was successful in his presentation. After the U.S. entered the war in 1917, K-C produced wadding for surgical dressing for the government and the Red Cross at the rate of 380 to 500 feet per minute. Red Cross nurses were using the new material as sanitary pads during their menstrual periods. Until then, "American women wore a diaper of bird's-eye or outing flannel, which they were obliged to wash and reuse," according to the book The Curse, A Cultural History of Menstruation.

The end of the war in 1918 brought about a temporary suspension of K-C’s wadding business because its principal customers - the army and the Red Cross - no longer had a need for the product. K-C repurchased the government’s war-surplus Cellucotton and had to figure out what to do with it. After learning of how the nurses created a new use for the product, K-C executives and scientists believed that they could develop a viable commercial consumer product for women everywhere.

**K-C Develops Sanitary Napkin**

After two years of intensive study, experimentation and market testing, the K-C team created a sanitary napkin made from Cellucotton and fine gauze, and in 1920, in a little wooden shed in Neenah, Wis., female employees began turning out the product by hand. Kotex (for "cotton texture") was introduced to the public in October 1920.

Kotex pads were K-C's first consumer product, and they were nothing short of revolutionary. Made from 40 plies of absorbent creped cellulose wadding shaped in a rectangle and wrapped by hand in gauze, those first napkins were bulky by today's standard, but they performed very well. For 60 cents, customers received 12 napkins packaged in a "hospital blue" box.

**Breaking Down Barriers**

Now it was time to tell the world about Kotex. Society's prim attitudes at the time regarding the subject of menstruation created a barrier that K-C executives had to break down to be successful. One publication after another refused to accept advertising for Kotex pads until, finally, after much discussion on the appropriateness of copy, the Ladies Home Journal agreed to run an ad. It featured a picture of a sophisticated woman and was headlined, "In the wardrobe of Her Royal Daintiness." It was accompanied by copy describing the product’s background and benefits.

Still, many drug and department stores refused to stock Kotex pads. Sales were disappointing and K-C executives had come to an impasse - should K-C drop Kotex pads and write off its investment or keep trying? The leaders of K-C decided it was worth the risk to continue to manufacture and sell the product.

The Kotex brand, of course, eventually became one of the greatest success stories in the history of American consumer products. Through massive education efforts and innovative advertising campaigns, K-C confronted and broke down society's preconceptions and stereotypes regarding menstruation.

**Evolving to Meet Women’s Needs**

K-C continues to deliver new and improved feminine hygiene products that make women's lives easier through the application of technological advances, the opinions of medical experts and key insights gained from our customers, shoppers and users. To learn more about Kotex products, visit www.kotex.com.
Prior to World War I, European manufacturers developed a product called creped cellulose wadding. It was a cotton substitute made from processed wood pulp. Ernst Mahler, head of Kimberly-Clark’s research, technical and engineering department, and James C. Kimberly, second vice president for manufacturing operations, discovered creped cellulose wadding while touring pulp and paper mills in Germany, Austria and Scandinavia in 1914. Mahler took the idea back to the U.S. and trademarked the material under the name Cellucotton.

World War I provoked cotton shortages abroad and in the U.S. Mahler traveled to Washington D.C., where he convinced the U.S. surgeon general that Cellucotton would be an ideal substitute for surgical cotton dressing in treating war wounds. He also had developed a flattened form of Cellucotton that was thin yet held its form - like a piece of cloth. He suggested that this product could be used as a filter in gas masks.

**World War I Ends, New Product Emerges**

The army expressed interest in the gas filter product, and K-C scientists continued to experiment with it. The end of the war in 1918 brought about an end to the gas mask project. With a surplus of Cellucotton, K-C needed to find another commercial application for the material. In the early 1920s, C.A. "Bert" Fourness conceived the idea of ironing cellulose material to make a smooth and soft tissue. With much experimentation, facial tissue was born in 1924 with the name Kleenex. The name most likely was derived from the word "cleansing" which was shortened to "clean," while the capital "K" and the "ex" ending were adopted from Kotex, which had been introduced four years earlier.

**Cold Cream Remover for the Stars**

Connecting the growing use of cosmetics by American women with the disposable cleansing tissue’s properties, K-C positioned it as a clean, convenient replacement for the unsightly "cold cream towel" that hung in many bathrooms. A package of one hundred 6” x 7” sheets sold for 65 cents.

In 1925, the first Kleenex ad appeared in the Ladies Home Journal showing "the new secret of keeping a pretty skin as used by famous movie stars whose complexions are always under close inspection, whose faces are exposed to glaring lights and to heavy makeup constantly." In 1927, the ads began using famous stars of stage and screen for testimonials and endorsements. This series included Jean Harlow, Irene Dunne, Gertrude Lawrence, Helen Hayes and many others.

**Handkerchiefs You Can Throw Away**

At the same time, Mahler, who suffered from hay fever, had been using the tissues in place of a handkerchief. He convinced K-C's advertising group to also position the tissue as a way to avoid spreading germs. In 1929, K-C's ingenious Pop-Up box for dispensing interfolded Kleenex tissue was introduced.

The product came into its own in 1930 when letters from consumers supporting the product's use as a handkerchief swamped K-C. After additional research, the company switched its advertising strategy to "the handkerchief you can throw away." Instead of being a product primarily for women's use, it now served men, women, young and old alike. Sales of Kleenex doubled the first year of this new campaign.

**Evolving to Meet Consumers’ Needs**

Ever since Kleenex tissue went on the market in 1924, it has been the No. 1 brand of facial tissue in the world and has become a genuine American icon. Along the way there have been many packaging innovations including a distinctive quadrant design singled out by the Museum of Modern Art in 1949, in an exhibition called Modern Art in Your Life, an attractive upright designer package and the most recent oval-shaped packages to name a few. K-C continued to improve the landscape of facial tissue by introducing product extensions such as its Kleenex Cold Care line of products, and recently the Kleenex Anti-Viral facial tissue. This new-to-the-world product innovation kills 99.9% of cold and flu viruses - within 15 minutes.* To learn more about Kleenex products, visit www.kleenex.com.

*Beginning working immediately, ultimately killing 99.9% of cold and flu viruses in the tissue within 15 minutes. Effective against Rhinoviruses Type 1A and 2 (Rhinoviruses are the leading cause of the common cold); Influenza A and Influenza B (causes of the flu); Respiratory Syncytial Virus (RSV-the leading cause of lower respiratory infection in children).

**Source:** Shared Values: A History of Kimberly-Clark
In the 1980s, Kimberly-Clark researchers discovered through several focus groups that parents were frustrated with the toilet training process. As researchers probed more they discovered that toilet training was a major life stage for children. It separated babies from big kids. At the time, parents were already nurturing and supporting that life stage by using cloth training pants, which pulled off and on like underwear. The children were happy, but the cloth training pants were quite messy, and that made the parents unhappy.

The researchers at K-C had an idea, but first they would need to validate their hunches. They began collaborating with pediatricians and child psychologists to better understand the life stage and emotional issues associated with potty training. More specific research was conducted with consumers. As an extra bonus, the researchers learned that by reducing the frustration felt by parents, it would reduce a source of anxiety felt by kids.

The disposable training pants idea was validated. Parents wanted a product that a child entering this life stage would associate with "big kid" underwear, and that parents would also embrace as having the convenience, practicality and performance of a diaper. All the pieces were in place - K-C knew how to make, market and sell diapers. But, wait a minute! The market potential wasn't in diapers. Parents didn't want to perpetuate the diapering stage. How could they make this product different?

K-C Creates Disposable Training Pants Category

Through extensive research K-C knew that this could not be an extension of diapers. It had to be Big Kid pants - a phrase accepted from coast to coast to define, even in the minds of young two-year-olds, the positive emotions of this age.

New-found confidence and independence arising from pride in accomplishment are associated with 2-year olds so the name of this new product had to reflect these attributes. Since kids can pull training pants up and down by themselves, K-C created the name Pull-Ups. They also discovered that kids define their experience as "I'm a big kid now." So we trademarked the whole line and adopted it as the primary positioning of the new brand.

National Roll Out and Educational Campaign

K-C knew it had a winner on its hands. They didn't want to simply introduce the category, they wanted to be the category. No test marketing on the innovative product was conducted for fear that it would tip competitors. In 1989, a national rollout was launched, blanketing one-third of the country over a three-year period.

As a supplemental strategy, K-C launched a consumer education campaign that reached out to parents by providing information and resources to use in toilet training their children. Additionally, K-C commissioned a pediatrician specializing in child development and a children's author to work jointly in developing a children's story book on the subject. Parents and physicians were provided this book free of charge.

Evolving to Meet Children's Needs

Pull-Ups Training Pants became one of K-C's greatest success stories. Never one to rest on its laurels, K-C continues to refine and develop the training pants category with improvements such as gender-specific products and Easy Open Sides for Mom...just in case! Based on the insight validated with thousands of Mom that no two kids train alike, Pull-Ups Training Pants offers options to help all toilet trainers succeed and feel like a Big Kid. Pull-Ups Training Pants with Learning Designs has designs that fade when wet - inside and out - while Pull-Ups Training Pants with Cool Alert has a special coolness zone inside of the pant that helps toddlers feel cool within seconds of becoming wet to help them learn to stay dry. Also available is Pull-Ups NightTime Training Pants with extra absorbency to help maintain potty training consistency at night. K-C also extended the category with products such as GoodNites Underpants, designed to preserve the dignity of older bedwetting children, and Little Swimmers Disposable Swimpants, which provides non-toilet trained children added absorbency and protection in a disposable pant while swimming or playing in the water. To learn more about Pull-Ups and its product innovations as well as toilet training tips, visit www.pullups.com.

Source: The Pull-Ups Story, Steve Meyers, Karma Group
Have you ever wondered what people used before the invention of toilet paper? The answer is - pretty much anything that worked. Included in this odd list of items are grass, leaves, fur, mussel shells, corn cobs, newspapers, sponges and even the Sears catalogue and the Farmer's Almanac.

The first recorded mention of “toilet paper” occurred in the fourteenth century when China’s Bureau of Imperial Supplies began producing 720,000 2 inches by 3 inches sheets of toilet paper a year to be used by the emperors. Fast forward to 1857 when the first packaged sheets of pre-moistened bathroom tissue in the U.S. were produced by New Yorker Joseph Gayetty. He called it “therapeutic paper” and sold it in packs of 500 for 50 cents.

Scott's Revolutionary Idea
In the late nineteenth century, the public’s desire for better hygiene coincided with improvements in residential and commercial indoor plumbing. In 1890, the Scott Paper Company came up with a revolutionary idea that forever changed the way people used toilet paper. They became the first company to market rolls of tissue specifically for use as toilet paper. It wasn't an easy sell. The market was limited and the subject was considered unmentionable in the Victorian 1890s - consumers wouldn't mention it, merchants wouldn't display it and publications wouldn't advertise it.

Innovative Strategy
Faced with this resistance, Irvin and Clarence Scott devised an interesting strategy. They gave their merchant-customers a proprietary interest in selling toilet tissue by customizing the product to each customer's specifications for the size and form of the package, the weight of tissue and the name and design that appeared on the wrapper. Under this private-label arrangement the company purchased large "parent" or "jumbo" rolls of paper and converted them into the various small rolls and packages of toilet tissue.

The strategy worked. Scott was producing private-label brands for more than 2,000 customers. The only downside of this arrangement was that the Scott name had no consumer recognition or value at that time. All of that was about to change. Arthur Hoyt Scott, Irvin’s only son, entered the business in 1896. He believed that Scott's future lay in offering the public one - and only one - uniform product of guaranteed, consistent quality.

First Scott Brand Product
In 1902, Scott purchased all rights to the Waldorf trademark, a popular bathroom tissue at the time. It became the first Scott brand product. Arthur worked tirelessly to ensure the product's success. Over the next few years, Scott added other company-owned brands that eventually formed what was called "The Sanitary Line," a name that emphasized medication and sanitation. All private-label manufacturing was eliminated in 1911, marking the beginning of the complete concentration on Scott brands. In 1913, the company began manufacturing Scott Tissue bathroom tissue, and by 1925 became the leading toilet paper company in the world. In 1995, Kimberly-Clark acquired Scott Paper.

Evolving to Meet Consumers’ Needs
Arthur Scott's vision of high standards of quality, long-term growth and innovation have resulted in superior toilet tissue products such as Scott Extra Soft Tissue, Scott Moist Wipes and Cottonelle and its Aloe & E, Ripples, Ultra, Flushable Moist Wipes and Cottonelle for Kids product line extensions.

To learn more about Scott and Cottonelle products, visit www.scottbrand.com and www.cottonelle.com.