



## Consumer Products and Services



Consumer products and consumer services are two of the most powerful industries in the world. The consumer products industry accounts for two-thirds of the volume of trade in the world economy. It is the source of a significant portion of the gross domestic product (GDP) of many countries and also acts as a driver for other industries, especially advertising and retail.

The consumer services industry accounts for four out of five U.S. jobs. The dynamic services economy generates the largest services trade in the world, with exports of \$606 billion dollars in 2011 and a trade surplus of \$179 billion. Services supplied abroad by U.S. affiliates accounted for another \$1.1 trillion in revenue in 2010.

These two industries make it possible for our citizens to achieve the American dream and contribute to making the United States the most powerful country in the world. However, we must not forget the innovators that contributed to the consumer products and consumer services industries that yielded prosperity and progression. This year the National Inventors Hall of Fame recognizes three change-agents whose perseverance and innovation greatly impacted these powerful industries in the United States.



### Marion Donovan

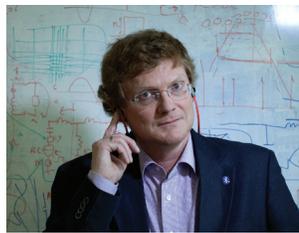
Marion Donovan is credited with inventing a waterproof diaper cover and for being one of the most successful female inventors of her era. After graduating from college, she was hired as Assistant

Beauty Editor for *Vogue Magazine*. After marrying, however, she quit her job and focused on raising her children. Frustrated by the unpleasant, repetitive task of changing one of her daughter's soiled cloth diapers, bed sheets and clothing, Donovan crafted a diaper cover to keep her baby and the surrounding area dry. Donovan worked with her sewing machine and several plastic shower curtains and, after creating a number of different versions, completed a waterproof diaper cover. Donovan named her diaper cover the "Boater" since she thought it looked somewhat like a boat.

Donovan approached all the big manufacturers with her idea, but none were interested. She decided to go out on her own to make and market the product herself. The Boater was a success from the day it debuted at Saks Fifth Avenue in 1949. Donovan received a patent in 1951 for the Boater and the same year, sold the rights to Keko Corporation for \$1 million. She later worked on an idea for a disposable diaper.

### Thomas Jennings

Thomas Jennings invented a process that he called "dry-scouring" – what we now call dry cleaning. Jennings received a patent for his process in 1821, becoming the first African American to be granted a patent. He was born a freeman in 1791 in New York City and through apprenticeships became a highly skilled tailor. His skills, both as a tailor and as a businessman, enabled him to open a store on Church Street in New York City and it grew to become one of the largest clothing stores in the city. Disappointed by the conventional methods of cleaning, which would often either leave the fabric ruined or still soiled, Jennings sought to find a solution. He experimented with different cleaning agents and solutions on different fabrics until he found a combination that worked to clean the clothes without harming them.



### Jaap Haartsen

Jaap Haartsen invented Bluetooth®, a wireless communications technology for the connection of devices over short distances. Originally designed to replace a cable, the technology has enabled easy connections between a huge range of devices from mobile phones and desktops

to printers and cars. The market for Bluetooth devices in 2014 boasts 2.7 billion devices and the Bluetooth Special Interest Group (SIG) has over 20,000 member firms that use the technology in their products.

Haartsen started his development of Bluetooth® alone and then with a growing team. The original name of the project was the Multi-Communicator (MC) Link, but was renamed after team members had a conversation about Harald Blatant (aka Harald Bluetooth). King Harald was famous for bringing together the different factions of Denmark, Sweden and Norway. This new codename became the official trademark because of the Scandinavian connection and because Bluetooth is able to connect devices from different industries. The Bluetooth logo is a bind rune of King Harald's initials.

In 1998, the Bluetooth SIG was formed by Ericsson, Nokia, Intel, Toshiba and IBM. In 1999, Bluetooth v1.0 specifications were released. In 2000, the first Bluetooth-enabled cell phones, PC cards, USB dongles, mice, and keyboards appeared. In 2001, printers, laptops and hands-free car kits appeared. More recently, Bluetooth® Smart and Bluetooth® Smart Ready products that use the low energy features of the Bluetooth® v4.0 (released in 2012) are allowing the creations of items like heart rate monitors that run for months or years on a tiny battery.

With the continued success of his business and the additional success brought by his invention, he turned to additional interests. He was a leader in the abolitionist and civil rights movements in New York City and beyond. He was a founding member and a trustee of the Abyssinian Baptist Church, the third oldest Baptist church in America. In 1831, he was assistant secretary for the First Annual Convention of the People of Color in Philadelphia. In 1855, Jennings helped organize the Legal Rights Association to raise challenges to discrimination as well as fund and organize legal defenses for court cases.