

Springboard

into
Comprehension

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Explanation



Inventions by Women



Written by Gordon Coutts

Inventions by Women

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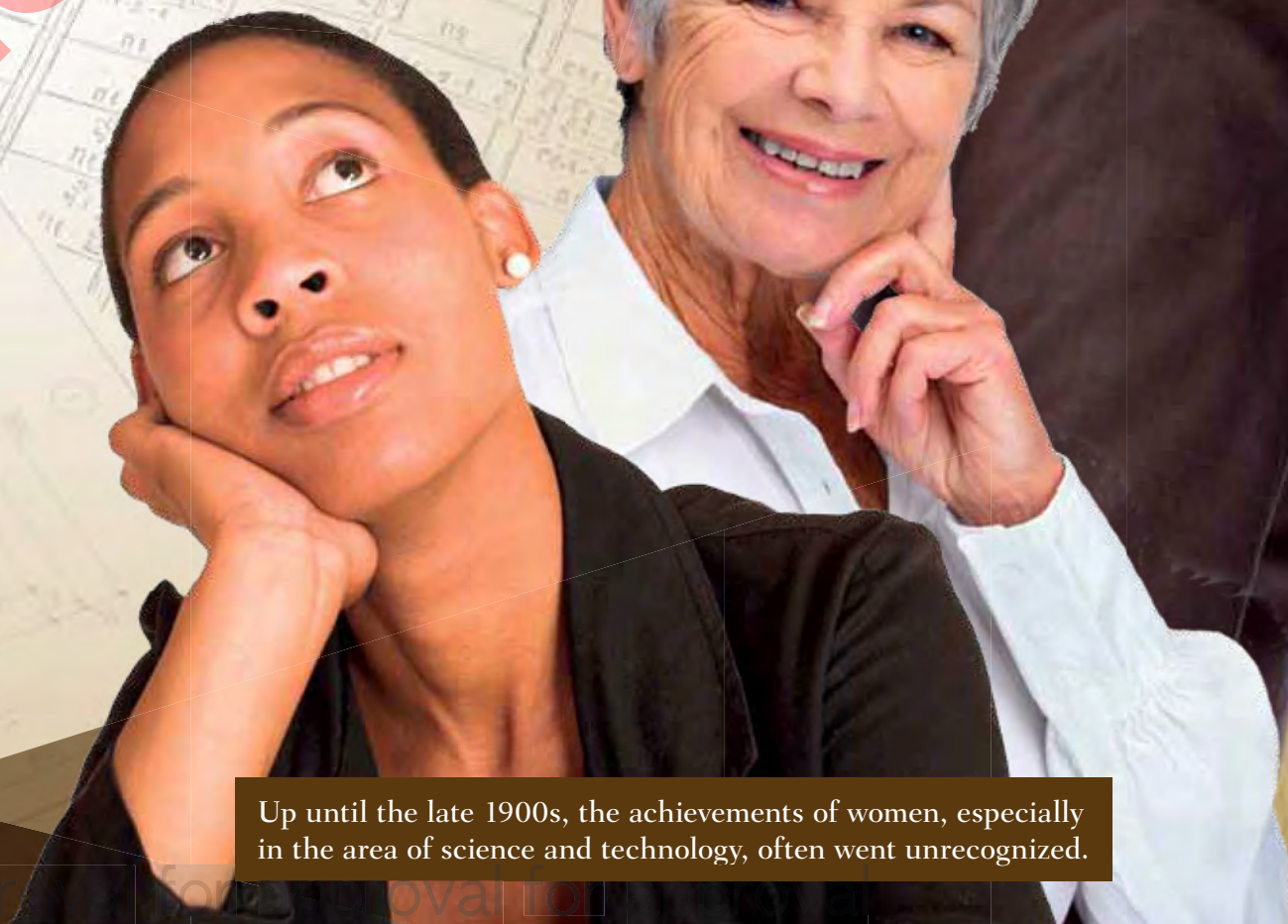
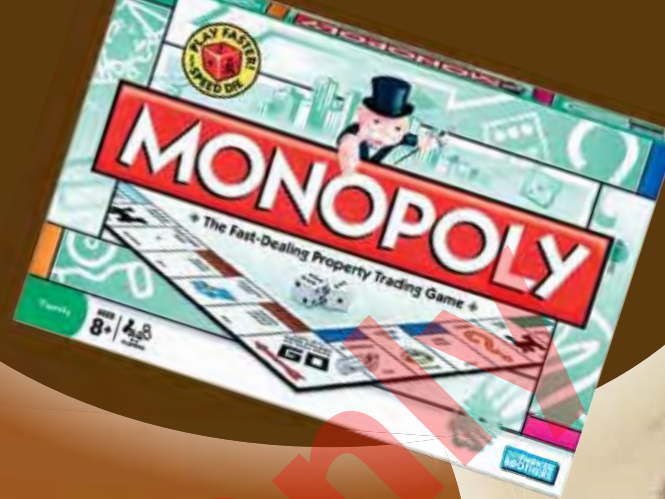
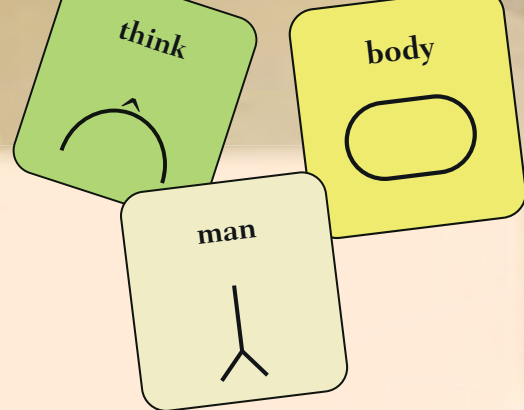
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Written by Gordon Coutts

Introduction

People are very inventive. If we find a problem, then we look for ways to deal with it. We now live in a world where we can talk to friends on the far side of the planet. We can cure diseases that once would have wiped out millions of people. When people think of famous inventors, they often think of men such as John Logie Baird, who invented the television, or Samuel Morse, who invented Morse code. However, there are a lot of great women inventors, too.

The women's own need was often the driving force, the **incentive**, behind their inventions. These women never wavered in their pursuit of their goals. This **perseverance** sometimes paid off. Several of these women ended up wealthy. Many of them used their wealth to help others, becoming **philanthropists**. Some set up charities to aid other women.



Up until the late 1900s, the achievements of women, especially in the area of science and technology, often went unrecognized.

Liquid Paper

Bette Nesmith Graham

Have you ever used a typewriter to write a letter? Because we now have computers, typewriters have become out of date, or **obsolete**. However, not long ago typewriters were essential for most businesses.

Bette Nesmith Graham, from Dallas, Texas, in the United States, was an executive secretary who became a successful businessperson, or **entrepreneur**.

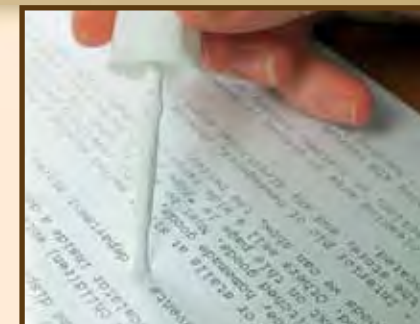
In 1951, while working at a bank, she and the other secretaries were using new electric typewriters. These were easier to use than the old mechanical typewriters. However, there was a problem. With the old typewriters, they could rub out the ink if they made a mistake. The new ones used carbon-film ribbons to mark the page. Consequently, when the secretaries tried to rub out their mistakes, the letters smudged. Because one small mistake meant having to retype the whole page, Graham had a strong incentive to find a solution to this problem.



Until the late 1980s, most offices used typewriters for their paperwork.

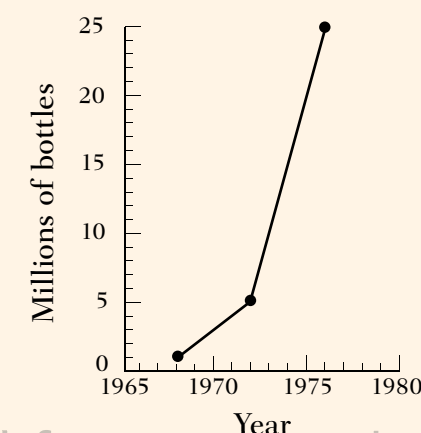
Graham happened to be an artist, too. This gave her the idea to use the artists' method of painting over mistakes. At home, she mixed up a batch of white paint. She took a small bottle of the paint and a brush into the office and used it to paint over mistakes. When another secretary found out what Graham was doing, she asked for some of the paint. Graham found a green bottle and wrote "Mistake Out" on its label. Soon, many of the other secretaries wanted a bottle, too. In 1956, Graham set up the Mistake Out company. She improved her paint and made batches in her kitchen. Her son and his friends helped her bottle the paint to sell. Graham changed the paint's name to Liquid Paper. In 1958, she received the sole right to make the product, a **patent**.

When her boss fired her because of a mistake, Graham devoted her time to Liquid Paper. In the next ten years, demand soared. As a result, Graham moved the million-dollar business to a proper factory in 1968. That year, she sold one million bottles. By 1976, the company was selling 25 million bottles a year. In 1979, she sold the company for US \$47 million. Bette Nesmith Graham became a philanthropist. She set up several charities to help other working women.



Once the white paint dries, it is possible to type over it.

Sales of Liquid Paper (1968–1976)



Disposable Nappies

Marion Donovan

Did your parents buy disposable nappies when you were a baby? They may have chosen them over cloth nappies.

However, people did not always have this choice. This is because until the 1950s there were no disposable nappies. Consequently, people used cloth nappies that had to be washed each time they were used. The woman who changed this was a mother from Connecticut, in the US.

Marion Donovan's incentive was that she did not like having to wash her youngest child's dirty cloth nappies, as well as the bed sheets and clothing. She thought there must be a simpler way to keep her baby clean and dry. Accordingly, Donovan took a shower curtain and set to work with her sewing machine. Soon, she came up with a completely new idea, an **innovation**. She made a waterproof nappy cover to keep her baby and its bedding dry. She could use it again and again. She called it the "Boater." This was because she thought it looked like a boat.



Using cloth nappies meant doing large piles of laundry.

As no one agreed to manufacture the Boater, Donovan made it herself. She refined the design over three years, settling on nylon parachute material. She also came up with the idea to put snap fasteners on it. This would eventually make the use of dangerous safety pins on nappies obsolete. The cover went on sale in 1949. Unlike rubber covers on sale at the time, Donovan's Boater was comfortable to wear. It did not cause nappy rash either, so it was very popular. Donovan received a patent for the design in 1951.

After this, Donovan set out to invent a fully disposable nappy. She used paper that was strong, absorbent, and able to draw liquid away from a baby's skin. Again, no firms wanted to make the nappy. They thought it was not practical and no one would want to buy it.

Ten years later, a chemical engineer named Victor Mills was working for a major American manufacturer of household products. He developed a disposable nappy similar to Donovan's, which his company then sold. The product was so successful that disposable nappies soon became a household item.

Disposable Nappy Usage Today

