

Chance discoveries or inventions

The items shown in the pictures below were invented or discovered by accident. Do you know or can you guess what happened?



Read one story each and then report your findings in your own words.

When you have listened to each other's explanations, complete the sentences below.

1. If Frank Epperson hadn't left...
2. Had George de Mestral's dog...
3. Had Alexander Fleming thrown away...

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Ice-lollies

In the winter of 1905, 11-year-old Frank Epperson left a glass of fruit-flavored drink mixed with water out on his porch overnight with a stirring stick in it. It was freezing cold at that time of year and the next morning he discovered he had accidentally made the world's first ice-lolly.

He didn't start selling his accidental invention until 18 years later when he prepared his frozen treat for a fireman's ball in his hometown of San Francisco. The crowd loved it, and Epperson quit his job as a property agent to patent and sell his soon-to-become famous product under the name 'Epsicles'.

Velcro

By the mid 1980s, Velcro fasteners were appearing on shoes and many other kinds of clothing. But few who bought the new material could have guessed how the material had been invented. Years earlier, Swiss engineer George de Mestral had been walking his dog in the countryside when he noticed his dog's fur was covered in prickly burrs. With his engineer's curiosity, he examined the burrs under a microscope and saw that they had tiny hooks on the surface that attached to loops of fur on the dog's coat. He spent the next eight years developing a clothing fastener based on his accidental discovery.

His first prototype was made from cotton and was introduced at a New York fashion show in 1959. But it wasn't until the high-tech fastener caught the attention of NASA engineers, who were looking for a way of securing toothbrushes in space, that it really caught on.

Penicillin

Before penicillin – the world's first mass-produced antibiotic – millions of people died each year from bacterial diseases. But Dr. Alexander Fleming's discovery was in fact the result of a mistake.

Fleming was researching the flu virus in 1928 when he noticed that one of his bacteria cultures was infected with a fungus. Most scientists would have thrown the spoiled sample away, but not Fleming. Six years earlier, he had discovered the mild antibiotic properties of human tears when one of his own accidentally dripped into a bacterial sample. Even mistakes, Fleming learned, had scientific value.

Upon closer inspection, Fleming noticed a clear ring around the fungus, indicating that it was toxic to the bacteria in the dish. Fleming carefully isolated the mold, a kind called *Penicillium*, and named his new wonder drug penicillin.