Things Discovered by Accident
https://www.youtube.com/watch?v=sHOMF5DLAxQ
Transcript: https://dontveter.com/ec/discoveries.pdf

Throughout human history, major discoveries have pushed the world forward in ways people at the time couldn't have possibly imagined.

But while you might assume that every amazing archaeological find or a scientific discovery was the result of careful planning, that wasn't always the case.

Some of the biggest breakthroughs ever weren't even done intentionally.

Today, we're taking a look at some major discoveries that were made by total accident.

But before we get started, be sure to subscribe to the Weird History channel and let us know in the comments below what other historic breakthroughs you would like to hear about next.

OK, time to uncover some interesting discoveries, but this time, on purpose.

American engineer and habitual overachiever Wilson Greatbatch boasted 325 patented inventions by the end of his career, which is pretty impressive.

Most of us can barely manage 300.

With such a prolific career, you may be surprised to learn that one of his most important inventions came about as a mistake.

In 1956, Greatbatch was trying to create a device to record a heart's rhythm.

While adding components to his device, a part was included which emitted an electrical pulse of its own, ruining its ability to work as intended.

One of the first rules of inventing is don't electrocute your customers.

However, in a fortunate turn of events, Greatbatch saw the potential for a completely new invention.

The rhythm of his failed device actually sounded a lot like a heart's natural beat.

Greatbatch eventually deduced that it could be used to deliver electrical pulses that would keep an unstable heart in rhythm.

This simple mechanical mistake ended up becoming the pacemaker, which has since saved the lives of countless people.

It's generally a good idea to finish all your projects before taking a vacation, unless you want to come back to a pile of angry emails.

Nobody told bacteriologist Alexander Fleming that back in 1928 when he left his position to take a few weeks off from the lab.

When he returned to the office, he discovered that one of his culture plates he had left out was now covered with the staphylococcus bacterium.

Looking closer, Fleming found a mold he didn't recognize had begun to grow.

This mystery mold seemed to be repelling the staph.

Fleming realized the compound could be used as an antibacterial agent. But his efforts to isolate it were unsuccessful.

It wasn't until 1939, when scientists at the University of Oxford successfully isolated and mass-produced the mold, now called penicillin.

In short, Fleming's rush to take his vacay wound up producing one of the most important antibiotics of the last century.

In September of 1940, a group of men were walking a dog named Robot when the dog suddenly disappeared into a hole in the ground.

More historical anecdotes should begin with a dog named Robot.

When they went into the hole after him, they discovered a large cavern, the walls of which were covered with incredibly ornate and unspoiled cave paintings.

A total of about 600 paintings decorated the cave walls.

When the artwork was analyzed, it was found to be an astonishing 17,000 years old.

The paintings and stone carvings depicted a wide array of animals like stags, horses, and buffalo, as well as a few mythical creatures such as a man with a bird head, you know standard myth stuff.

This impromptu spelunking trip had accidentally provided historians with a priceless cache of ancient artwork, providing invaluable insight into what human life was like thousands of years in the past. Nice work, Robot.

Swiss engineer Georges de Mestral was sick of taking his dog for a walk and coming back covered in prickly burdock seeds.

By 1941, he'd finally had enough of plucking the burrs out of his dog's fur, and presumably his own feet.

Being an engineer, Mestral wanted to figure out what gave burdock seeds their vise-like grip.

After looking at the seeds under a microscope, he found thousands of tiny hooks protruding from the seeds.

Georges wondered if he could find a practical application for this discovery.

He designed and patented a pair of nylon fabric strips, one with thousands of burdock-like hooks, and the other with thousands of loops to fasten onto.

Plus, the strips made an oh-so-satisfying sound when they were pulled apart. That invention was Velcro.

And countless happy parents cried out in joy and relief as they were no longer required to tie their toddler's shoelaces.

If you've heard it once, you've heard it a thousand times, don't bring your lunch too close to a magnetron tube.

But that's exactly what engineer Percy L. Spencer did in 1945.

He was working near a magnetron tube when he noticed that the chocolate bar in his pocket had begun to melt.

Spencer rightly deduced that the waves inside the magnetron tube reacted with the chocolate, heating and melting it right in his pocket.

Curious as to what else he could melt with his newfound heat ray, Spencer pointed the tube at other foods, including corn kernels and eggs.

Several experiments and much testing later, the radar range was sold to the public as an expensive commercial cooking device.

By 1967, an affordable version of the invention had become available, now called the microwave.

Today, folks around the world can safely and quickly reheat their burritos, thanks to one carelessly pocketed candy bar.

Back in 1848, explosive nitroglycerin was a hot item for all your everyday blasting needs.

The only problem was the unpredictable compound might blow you to smithereens.

Enter Alfred Nobel, as in the founder of the Nobel Prize.

But well before all that, Nobel was working to find a safer way to work with nitroglycerin.

So naturally, he carried this dangerous substance around in his pockets.

It wasn't until some of the liquid leaked out of his pocket cask and onto the ground that he finally discovered a solution. Tiny organisms on the ground were binding with the nitroglycerin and turning it into a kneadable paste.

This paste was safer to handle. And the combination of infused earth made for better explosions.

Originally calling his discovery Nobel's blasting powder, he eventually settled on the name dynamite.

These days, the Kelloggs are associated with breakfast cereal and cartoon mascots, which all things considered, is a pretty bodacious legacy.

But back in 1876, Dr. John Harvey Kellogg and his brother Will were only associated with the Seventh Day Adventist Church's Battle Creek sanitarium, which they ran in Battle Creek, Michigan.

John had been working on an easy recipe for healthy breakfast food to serve his patients.

But running a sanitarium can be busy.

And one night, John forgot to put away the flour, oat, and cornmeal dough he had been preparing.

The next time workers saw the dough, it was fermented and easily rolled into thin sheets.

Once baked, the sheets were broken into smaller fun-sized bits. And the first breakfast cereal empire was born.

Maybe sprinkle a little sugar on there too, John. That'd be great.

John Lea and William Perrins were drugstore owners in Worcester, England.

In 1835, they had a regular customer from India who dearly missed the taste of the fish sauce he enjoyed back home.

The customer commissioned Lea and Perrins to try their best to concoct a similar sauce for him.

But what they wound up creating was a little too potent to keep in their store.

It was so smelly that they stashed the failed sauce in the basement and forgot about it for nearly two years.

We get it. Every one of us has screwed up a recipe so bad we want to hide it underground.

Lea and Perrins rediscovered their stinky concoction while cleaning out the basement. But by that time, the sauce had fermented into a pretty delicious condiment.

They named it Worcestershire sauce, and marinated meats have never been the same.

People begin getting acquainted with the colorful, smelly Play-Doh almost directly after being born.

But the playful putty wasn't always suitable for ages two and up. For that, we can thank the coal industry.

Makes sense. They used to employ toddlers. Might as well give them something to play with during break time.

Back when homes were primarily heated by coal, the stoves used would produce a lot of excess soot.

And that soot usually ended up all over the wallpaper.

Kroger grocery stores were looking for a new way to clean the coal-stained wallpaper, so they hired Cleo McVickers of the family-owned Kutol Products cleaning supply company to come up with a solution.

He threw together a substance made from flour, salt, water, Borax, and mineral oil.

That sounds like he was just rolling the dice for a paycheck. But it worked like a charm.

The substance was able to lift the soot right off.

The 1950s saw a decline in coal heater homes, and in a completely unrelated situation, the passing of McVickers.

It seemed like his doughy concoction had cleaned its last wall.

Cleo's son took up the business after he passed, and at the recommendation of his schoolteacher sister-in-law, began to market the dough as an art supply instead of a cleaning product.

The putty was renamed Play-Doh. And while it has since changed manufacturers several times, it's still just as popular as ever.

And it still serves its original purpose of picking up all the crap it touches.

Post-it notes, those sticky squares of yellow paper that help us remember daily tasks like pick up the dry cleaning and drink some water, were invented by a research chemist from 3M by the name of Spencer Silver.

Silver was looking to develop a super strong, super tough adhesive.

He ended up inventing the exact opposite of that, a particle that allowed for removal and reapplication even after multiple adhesions, an interesting development, but again, the exact opposite of what 3M was looking for.

They had no interest in the reusable adhesive.

And the project was shelved, until 1980 when a coworker challenged Silver with a way to better bookmark his church hymnals.

Silver slapped that reusable adhesive onto the back of some tiny squares of paper, and office supply stores have never been the same.

We don't need to tell you that times were tough in the 1940s.

In the aftermath of World War II, many items we take for granted today, such as cocoa, became difficult to obtain.

But an ambitious snack designer named Pietro Ferrero was determined to keep the world snacking by finding a proper and delicious alternative to that sweet, sweet chocolate.

Using only the smallest bits of the precious cocoa, Ferrero concocted a loaf made from sugar and hazelnuts that was perfect for spreading.

The result was a massive success that eventually found its way across several continents.

In 1964, the spread was renamed Nutella. In your face, cocoa.

Swiss chemist Albert Hoffman was big on experimenting with lysergic acid, a compound he was able to synthesize from some fungus growing on rye bread.

Bit of a strange hobby, but you know how chemists are.

He planned to study how different organic compounds could combine with the acid for medicinal purposes.

What he didn't plan for was tripping his entire face off.

Unbeknownst to him, Hoffman had accidentally ingested one of his latest compounds, labeled LSD-25.

What followed was a two-hour period of hallucinogenic intoxication, which was pretty nice, man.

After realizing his totally groovy trip was the direct result of ingesting LSD-25, Hoffman decided to keep dosing himself to see what would happen, you know, for science.

The compound was used extensively in the US until it was made illegal to manufacture, sell, or possess in 1965.

A big problem any sailor faces is keeping their stuff from bouncing all over the ship while navigating rough seas.

Navy engineer Richard James knew this and was working on a way to keep important equipment stable during missions at sea using metal coils.

James tested several coils of varying thickness during the testing phase, but none proved to be strong enough.

After tossing one failed prototype on the floor, James noticed that the coil flopped end over end. And the movement kind of looked like it was walking.

With a keen insight possessed by every inventor throughout history, he thought, I could probably sell this thing to children.

James' wife named the funky little spring the Slinky.

The couple went on to market the popular toy, which is still rolling down stairs alone or in pairs to this very day.

So what do you think? Which one of these accidental innovations surprised you the most? Let us know in the comments below.

And while you're at it, check out some of these other videos from our Weird History.