

Gum

text and art by Meghan McCarthy

n a small street in Philadelphia in the 1920s, there was a factory owned by the Fleer family. Inside the factory, lots of gum and candy were made.

Working upstairs was a young accountant named Walter Diemer.

math but not much about gum. There wasn't enough space in the building, so a new experimental laboratory was moved into the office next

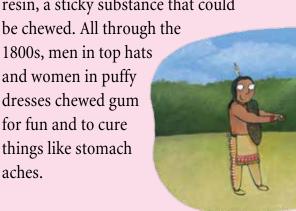
to Walter's. In came lots of beakers and pots and tubes. What could be going on?

The big secret was that the company was trying to make a new kind of gum. Chewing gum had already been around for centuries. The

American Indians introduced early settlers to spruce tree

resin, a sticky substance that could

1800s, men in top hats and women in puffy dresses chewed gum for fun and to cure things like stomach aches.





Ho hum. Gum wasn't that exciting. But what if gum chewers could blow bubbles? Now that would be something—a world full of bubble gum blowers!

Every day Walter watched what went on inside the laboratory. There wasn't much progress. One day his boss gestured toward one of the kettles containing a gum experiment and said, "Watch that, will you?"

"After a while I was not only watching it, I was doing it," Walter said. He added a bit of this and a

bit of that . . . but still

nothing. Perhaps
making a new
gum wasn't
possible after
all. And soon,
Walter's boss
gave up.

But Walter didn't. He spent months playing with different mixtures. Finally something was happening! Bubbles! Big, glorious bubbles! The mixture needed flavor, so Walter added a bit of cinnamon, a dash of wintergreen, a drop of vanilla. . . . Could this bubbling batch be bubble gum?

Walter put a wad into his mouth and began to chew. When the time was right, he blew a magnificent bubble!





Sadly, the next day
the mixture was as hard
as a rock. "It wouldn't
blow a bubble worth
a darn." But Walter
didn't give up. Back to
work he went! After
many more months
of adding this and
that (top secret
ingredients he would

never share!), Walter found what he was looking for.

It bubbled and popped. Could this batch finally be bubble gum? To finish off his grand creation, he needed some color. "Pink coloring was the

"I had it!" Walter said. Excitedly, he passed out the mixture for his coworkers to try. "We were blowing bubbles and prancing all over the place!"

What Makes Gum Chewy?

Chewing gum is made from four basic ingredients:

gum base (chewy stuff such as tree gum or synthetic
rubber), oil to soften it, sweeteners, and flavor—though the exact
recipe for each gum is a closely guarded secret. These ingredients are
heated and kneaded together in huge mixers to make gum.

Long, springy molecules in the gum base make the gum chewy. These molecules stretch out when they are squeezed, then spring back to their natural tangled shape, over and over. Sugar and flavor nestle in between the tangles and are released as you chew. To blow bubbles, the gum base has to be extra springy and stretchy.







Gum used to be made mostly from chewy tree sap. But there aren't enough trees to keep up with our demand! So modern gum is made from synthetic rubber—the same stuff that's used to make rubber bands, party balloons, and elastic.

This is harder

than it looks!



They were the first people in the world to try a bubble gum that worked.

That day Walter gave lessons on how to blow bubbles. Everyone loved bubble gum! "When the kids discovered what it could do, it sold out that afternoon," Walter said.

Walter's Dubble Bubble was such a success that Fleer made truckloads of it. After being promoted to vice president and then later retiring from Fleer, Walter enjoyed the rest of his life in a relaxed manner. He was known to ride around on a giant tricycle, and he liked to invite the neighborhood kids over for . . . what else? Gum-blowing contests!

Walter Diemer never got rich from his invention, but he didn't seem to mind. "I've done something with my life," he said. "I've made kids happy around the world."



