How Does the Toothpaste Get into the Tube?

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The year was 1870. New London, Connecticut, United States. 7 am.

Kids were tumbling out of bed, their mothers hurrying them to clean their teeth, handing them tooth sticks and jars of toothpaste.
What? Did I just say – “Toothsticks”?
That’s right.
They used toothsticks to clean their teeth back in 1870. A toothstick was simply a twig with a frayed end. Some lucky kids had twigs with boar hair tied to one end for that extra shine.
And what was that other thing I said? “Jars of toothpaste”?
That’s right. Toothpaste tubes were not invented yet. They only had jars.
And every bleary eyed kid started her day by dipping a toothstick into a porcelain jar filled with toothpaste.
Actually, into the same porcelain jar that every other member of the family dipped their toothstick into. Including that visiting grand aunt with yellow and black teeth, whose toothstick matched her teeth.
One morning, a disgusted cry went up in a dentist’s house. “Ewwwwwwwwwwww!”

It was Dr. Sheffield’s son Lucius, who refused to dip into the jar anymore and decided to use tooth powder henceforth. But a thought remained in his mind – there must be a better way to use toothpaste.
A few years later, Lucius went to Paris to study the science of dentistry. There, he saw artists squeezing paint from metal tubes on to their paintbrushes. Why couldn't the same type of tube be used to hold toothpaste?!

He rushed back home and shared this idea with his father, who thought that it was just totally awesome.
There was just that little matter of figuring out how to get the toothpaste from a jar into the tube through that little opening. How do you think Lucius could fill toothpaste into an empty tube?

Have you had a bad morning when you squeezed way too much paste in your half asleep state? And you see that there’s toothpaste all over the sink and your mother is reminding you that the school bus will be at the doorstep in twenty minutes, and the last thing you want is for her to flip when she sees the mess you’ve made? How would you go about putting the toothpaste back into the tube?

Now, what do you think Lucius and his father used to fill a tube with toothpaste? A ear bud? Or a really tiny spoon? A toothpick?
It was not as messy as you’d expect, because the way Dr. Sheffield and his team did it was without opening the cap!

That’s right, they kept the cap screwed on tight, and opened up the other end! It’s definitely easier to fill a tube from the larger end, especially if you have something to pump the paste with, like a syringe. After that, all you have to do is seal the end tight so that the paste will not leak.
Today, toothpaste tubes are filled using machines. All the empty tubes are lined up on a conveyer belt with their caps downwards and the unsealed end pointing up. A big container filled with toothpaste is fixed above the conveyor belt.
From a nozzle at the bottom of the container, the toothpaste is let into each of these tubes as they move along the conveyor belt. But the paste is not filled all the way to the brim. About half an inch is left so that it can be sealed.

Now the tube is ready to be squeezed!
Ancient Indian wisdom for good teeth

Many people in India use datun, the twig of a neem or babool tree, instead of a factory-made brush. Datun keeps teeth and gums healthy. But do you know which the best brush in the world is?

Your fingers, say dentists! Great for the teeth and gums.

Have you tried tooth powder? What are the different smells that you can detect in it? Herbs and spices that are good for teeth include mint, clove, cinnamon, black pepper and tulsi. Eating fibrous fruits and vegetables, like apples and carrots, is good for cleaning teeth.
Fun with toothpaste caps
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How Does the Toothpaste Get into the Tube?
(English)

Squeezing out the toothpaste from the tube every morning is simple. But do you know how it got into the tube? Let’s tell you how.