

Inventor targets dental niche

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HAVERFORD — Forty-four years ago, John H. Gallagher Jr. was an Army medic stationed on an amputee ward at the Walson Army Hospital in Fort Dix, N.J., during the Vietnam War when, one weekend, he was assigned to one particular amputee.

“He was a torso,” the Haverford resident recalled. “He lost all of his limbs. He was a kid and he was probably three years younger than I was.”

The young Gallagher became speechless. “I could not speak to him,” he said. “There was no meaningful conversation you could have. ‘It’s nice out, want to go out on a gurney? Do you have a girlfriend?’ I became as catatonic as he was.”

Decades later, those few days still haunt him and propel him to better the lives of thousands of others as he persists in bringing his edible toothbrush to fruition.

“I’m trying to make amends for what I didn’t do that weekend,” Gallagher said.

The dream of the Dent-Chew Brush, also known as Clean Bite™, was birthed on a 15-hour car trip from St. Louis to the Philadelphia area during that same era.

“I’d do anything to be able to brush my teeth,” he thought on the ride, as he extrapolated that and thought of how such a device could help amputees as well.

For years, the concept remained in hibernation as Gallagher married, raised seven children and tended to various businesses, including the construction firms, American Recreational Builders Inc. and Gallagher and Associates Inc.

The thought lingered and Gallagher thought of creating it for military use, to replace the two pieces of Xylitol gum in the MREs. A few years ago, he decided to devote himself fully to realizing his dream. “I eat and breathe this,” Gallagher said of his toothbrush.

The Clean Bite™, developed by Gallagher and Dr. Roman Bielski, is in the shape of a double mouthpiece with almost 800 bristles lining the arches of teeth and gums, as well as a bristled piece for the tongue. The collagen/gelatin mix is infused with Xylitol and can include vitamins, nutrients, medications and microencapsulated vaccines. Its flavor can also be targeted to particular audiences from mint for adults to grape and others for children.

A user places it in their mouth and begins to chew and within 60 to 90 seconds, the device breaks down into pieces and eventually dissipates altogether.

So, after writing a provisional patent to the U.S. Patent and Trademark Office and a non-provisional one a year later, Gallagher created a website in 2009 and approached Eastman Kodak Co. about providing the needed gelatin to manufacture the Clean Bite.

They entered into a non-disclosure agreement, according to Gallagher, but then Kodak went bankrupt.

Gallagher did not quit.

He approached U.S. Rep. Pat Meehan, R-7, of Upper Darby, who introduced him to U.S. Rep. Elijah Cummings, D-7, of Baltimore after a 12-year-old boy, Deamonte Driver, died in 2007 after a tooth abscess.

For 18 months, Gallagher sifted through Centers for Disease Control dental records and learned that the dental health of underprivileged children was the same as the lower ranks of the military, who generally come from the same populations.

Enlisting the assistance of Mark Latta, dean of Creighton University's School of Dentistry, to create a testing protocol for this and the University of Maryland, he applied for approval from the National Institutes of Health.

"We were unsuccessful because we weren't a line item," Gallagher said. "We were an anomaly."

He remains resilient. "I can't let go of this," he said, adding that several studies including one from the University of Pennsylvania's Wharton Small Business Development Center attest to its financial viability.

Gallagher remains optimistic as the U.S. Securities and Exchange Commission plans to revise the Securities Exchange Act of 1934 next month to allow companies to raise up to \$1 million annually through equity crowdfunding. Then, with that capital, the product could reach various markets from the military, prisons, hospitals, managed care and disaster recovery efforts.

In addition, he said the Clean Bite™ holds the potential to be distributed to the millions of students who receive free or reduced lunches every day in American public schools.

However, Gallagher added, "We see an international market as the really dominant market over time."

And, that vision of providing for youth in abject poverty throughout the world has driven him through decades of obstacles and the memory of a silent weekend that he wishes he had done differently.

For more information about the Dent-Chew brush, visit www.dent-chew.com or by emailing John Gallagher at jgallagher@dent-chew.com.