



Shaving redesigned: A cushion of water while shaving eliminates irritation and the need for shaving chemicals like foams or gels.



Abby Whitaker is a sophomore at Barrington High School, a 4.0+ student, Student Council member and committee head, member of the Softball and Volleyball teams, volunteer at Hopes In Barrington, and is a recipient of the American Legion award. Mark Whitaker was the president of a company, PackagingPrice, Inc., headquartered in Barrington from 2000–2015. He is active in local youth sports including current president of the Barrington Broncos Wrestling Club, coach for Barrington Youth Football for seven years, and Baseball and Softball coach for over nine years.

## A Barrington Father-Daughter Team Launches Invention

**W**HEN ABBY WHITAKER, a sophomore at Barrington High School, hit the age when she needed to start shaving her legs, she ran into the problems all of us face with this uncomfortable routine. Nicks, cuts, rashes, and the general messiness of shaving frustrated the teen, so she approached her dad with an idea on how to solve this problem.

Abby noticed that her dad used an odd shaving device that his father invented back in the early 1980s. She asked if she could try it, and to her surprise, the “antique” razor gave her the shaving comfort she was looking for. It was then that Abby and her dad, Mark Whitaker, decided to modernize the shaving invention, and possibly make a run at starting a family business.

After two years of countless design changes, prototypes (many of which were 3D-printed at the Barrington Area Library), failed tests, and trips back to the drawing board, Abby and Mark have finally nailed down their invention. In fact, they just filed for a U.S. Patent, and are ready to launch

their new product: The Waterblade Shaving System. We asked the inventors about their journey.

**QB:** *Abby, what inspired you from solving a shaving problem to possibly making a product for the market?*

**AW:** Well, I was passionate about the product to begin with. I knew it could help a lot of other girls that had similar issues with shaving. I talked to some of my close friends and I knew that they would love it as well. My Grandpa is another big inspiration to me. This was originally his invention, and I really wanted to honor him by continuing with his idea and hopefully making it a success.

**QB:** *Mark, your father invented the razor that inspired Abby, the one you use. Was your father an inventor, too?*

**MW:** My father was an engineer at Marquette University, but always “tinkered” with new products. The Waterblade was by far his best idea. As a single parent and full-time employee, he never quite had the time and resources needed to fully commercialize ideas.

**QB:** *What were the steps to go from initial thought to a 3-D model you can show manufacturers and use to apply for the patent?*

**AW:** We first wanted to see if other people liked the idea. So, we gave my Grandpa’s invention to a bunch of friends and family. They all really liked it and told us we had a good idea. Before spending lots of time and money on prototypes, we wanted to make sure we could get a patent. We talked to a patent lawyer my dad has worked with, explained our idea, and read through lots of other patents. After that, the lawyer said he thinks our idea could potentially be patented. We had to modernize the Waterblade because it only worked with old blades. This took a lot of CAD work, prototypes, testing, failures, and going back to the drawing board. Can you believe we’ve made 192 revisions to our first try? Once we had a prototype that worked, we filed for a patent, and started talking to companies that can make our product.

**QB:** *What were the greatest challenges in this process?*

**AW:** With my schoolwork, sports, and extracurricular activities, it's really hard to find time to work with my Dad on the project. We did manage to find time, usually on Sunday nights, to work together.

**MW:** Reverse engineering the blade cartridges we want the Waterblade to work with. Our first design works with Gillette Venus blades. Those blades are highly engineered products, and are very small. Re-creating a Venus cartridge took almost as long as designing the Waterblade itself.

**QB:** *How does the Waterblade Shaving System work?*

**MW:** It's very simple. The Waterblade directs a small flow of water from your shower through a Gillette Venus cartridge. This creates a "cushion" of water between the blades. The cushion of water heats, hydrates, and softens hairs making them much easier to shave, and thus eliminating irritations like nicks, cuts, and razor burn. The cushion of water also eliminates the need to use chemicals, like foams or gels, so the Waterblade is a much healthier way to shave.

**QB:** *What are your plans and hopeful timeline to move this from prototype into a product on the market?*

**AW:** We're going to launch the Waterblade soon on Kickstarter or Indiegogo. These are companies that let you pre-sell your invention so you can raise the money you need to start making it. The Waterblade will be injection molded, so it will be very expensive to make the molds.

**MW:** We've had many virtual meetings with companies that can make the Waterblade for us, and we've determined our product and upfront capital costs needed to launch. That's where Kickstarter will come in. We hope to launch a Kickstarter campaign within the next 3-4 months. Assuming that goes well, we can then make the molds and hopefully start shipping Waterblades by the end of the year. We're also planning on approaching various traditional and online retailers to help sell the Waterblade. We also plan on launching a men's version of the Waterblade shortly after the women's version. Prototypes are in the works.

**QB:** *What advice would you give to others to make their product idea a reality?*

**AW:** Be ready to put in a lot of work. I didn't realize how long this process would take with all of the tweaking, big and small decisions, and restarting. Innovation takes work, which is an important lesson that I have learned through this project. But hopefully it will all be worth it in the end!

**MW:** With all the technology available like Google, online CAD software, 3D printing services and crowdfunding services like Kickstarter, there has never been a better time to launch a new product than now. You can do as much yourself as possible, or hire experts in each area. It's entirely up to you. But if you have an idea, now is the time to make it happen.

To learn more and follow updates on the crowdsourcing campaign, visit [waterbladeshave.com](http://waterbladeshave.com)

To reach the inventors, call 847-708-1720 or email: [info@waterbladeshave.com](mailto:info@waterbladeshave.com).



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