





BRIGHT IDEAS

A SURPRISING NUMBER OF INNOVATIVE PRODUCTS HAVE ROOTS IN LAKE HAVASU CITY

STORY BY BUCK DOPP

Ridea to create a city out 26 square miles of Arizona desert is the reason Lake Havasu City exists. Bob Woolley, Dick Raczuk and Dennis Lentch are local inventors and entrepreneurs with big ideas of their own who share that pioneering spirit.

Santa Anna firefighter Bob Woolley spent his leisure hours skiing barefoot at the Parker Strip. Impatient with "waiting for smooth water," he invented a sit-down hydrofoil in 1983. For about seven years he refined the prototype until he could bring it to market.

Woolley filed his first design patent for the sit-down hydro-

foil in 1989, calling it the Air Chair and the next year started a business with the same name. He updated the patent in 1999 from fiberglass to carbon fiber and added curved wings to the design.

He holds eight patents on the current model that is manufactured and sold in Havasu.

The Air Chair is towed behind a boat as the rider sits on a seat connected to an elongated board. Riders can go 30-feet in the air, although the height depends on the skill of the operator and the efficiency of the airfoil. In competitions, those who can perform the most difficult tricks with the longest air time usually win.



Dick Raczuk invented his "KoulTool' after he grew tired of getting his fingers lacerated by tiny metallic barbs while fabricating hose assemblies.

Air Chair Manager Collin Bangs, who has been with Woolley since 1999, said going for a spin on the Air Chair is, "like flying or a magic carpet ride—smooth and quiet. It's very easy. All ages can ride it."

Engineers and so-called experts told Woolley the sit-down hydrofoil would never work. His advice to aspiring inventors is to ignore the critics, believe in yourself and "don't listen to anyone else."

He added, "And don't apply for a patent if you can't defend it. Being able to defend it is where the strength of the patent comes."

Dick Raczuk has a distinguished track record of believing in himself and executing his big ideas. He manufactured 50,000 of his patented motorcycle exhausts a year. When he sold his business in 1986, Raczuk devoted his garage-time to seven vintage cars.

While fabricating hose assemblies for a 1941 Graham Hollywood, Raczuk grew frustrated. When he pushed the hoses into the fittings, the stainless-steel fibers at the ends of the hoses stabbed his fingers. So, Raczuk invented a tool that allows him to funnel the hose into a fitting without getting his fingers lacerated by the tiny metallic barbs.

A friend of Raczuk's remarked, "That's a cool tool."

Raczuk loved the name and patented the KoulTool and two similar tools that connect fittings to the hoses that transfer gas, oil, air or coolant to boats, cars and airplanes.

He has sold over 90,000 KoulTools and hasn't had a single one returned. The only thing he gets back are thank you letters. The KoulTool kits vary in cost depending on the size and application.

"The money you save in Band-aids will pay for the tool," Raczuk said with a smile.

He's been awarded so many patents, he's lost count, yet they all have one thing in common — they solved a problem.

According to Raczuk, inventing is the "easy part." His ballpark estimate is that the legal fees to get a patent may cost as much as \$5,000 to \$10,000. Getting the patent and bringing the invention to market are the biggest

expenses.

"Every time you come up with a patent, you're not going to make a million dollars. Between 95%-98% of patents never become commercially successful," he said. "Most patents fail because they're only good ideas to the inventor."

Raczuk suggested that inventors do their homework before investing. "If you're playing poker with rent money, make sure you have a good hand before you go all in."

Dennis Kentch is another inventor who knows about the challenges and costs of bringing a big idea to market.

As soon as he launched D and J's Pool and Spa Service and Repair 25 years ago, he questioned a standard practice of pool maintenance.

"I didn't want to drain water out of a pool," he explained. "Each time I drained a pool, I saw a waste of a precious resource. That's kind of dumb."

Over time, swimming pools accumulate a large quantity of total dissolved solids (TDS). High TDS in water makes it impossible to achieve the Langelier Saturation Index (LSI), which is the perfect chemical balance in pool water.

When pool water is balanced, it has no detrimental effect on the pool or equipment.

When pool water is not balanced, the chemicals are unstable. The water becomes corrosive to the equipment and pool walls. The chemicals are unable to do their job of killing germs and keeping the water clean.

Pool filters can remove suspended solids. However, the only way to eliminate TDS is reverse osmosis. That process is impractical for pool water. As a result, the common practice is to drain pools every few years and replace the water. Water is dumped instead of replenished and pool walls experience more damage, which adds to the expense of pool maintenance.

Kentch had a big idea. He experimented with "bleeding a little water" out of his pool each day to water his plants and trees. The chlorine had no ill effect and he achieved the LSI without draining the pool.

He acquired a utility patent for this method of "water recovery," which he deemed "100% successful." Next, he



Dennis Kentch, of D & J's Pool & Spa Service & Repair, invented a device that uses pool water to irrigate landscaping while keeping the pool water at the desired chemical balance.

designed and patented the AquaZerve, a device that attaches to the pool equipment and automatically drains a little pool water to plants or a sewer drain.

"I thought I'd be flying

around in a Lear jet, envisioning a flood of business," Kentch said.

It didn't work out that way. Although he sold about 1,500 units, other pool cleaners mocked his invention

and badmouthed AquaZerve as "snake oil." According to Kentch, pool service guys didn't want to lose that extra \$200 in revenue they were getting every time they emptied a pool. He didn't have enough marketing dollars to counter the negative talk on the street and finally gave up, selling the patent about a year ago to a large company in the city.

He still provides pool service to the 100 clients on his route and they enjoy the benefits of the AquaZerve unit. Their pools are crystal clear and free from harmful bacteria or corrosive elements. In addition, these fortunate folks are able to reduce or even eliminate the calcium scale deposits on the pool walls at the water line. And Kentch hasn't drained a pool in 20 years.

