



It's difficult to picture Benjamin Franklin walking down the aisles of the local Ace Hardware store, searching for the perfect conductor to complete his electricity experiment.

It's even stranger to imagine Alexander Graham Bell perusing mail order catalogs, making sure none had copied his telephone idea.

But Doak Ostergard, who recently invented a therapeutic ankle and lower leg exercise machine, says he used to page through catalogs looking for possible duplications. And, he used to pace up and down the aisles of hardware stores, hoping that the materials for his invention would pop out at him. "I made a bunch of trips to the hardware store," laughs Ostergard when talking about his search for parts to create his exercise machine.

The final product: The Stroker, a lower-leg rehabilitation device that provides a natural form of resistance and hydrotherapy.

The physical make-up of the device includes a heelless rubber boot which fits over the foot and a heel buckle which secures the foot's placement in the boot.

A stainless steel rod connects the boot and a plastic scoop, which is a resistance mechanism.

Submerged in water, the moving foot in conjunction with the scoop foot provides a resistance that allows the foot both hydrotherapy. The weight of the resistance allows the strained ankle or lower leg to rebuild endurance.

"It lets you utilize the hot/cold whirlpool therapy at the same time as you exercise," he says.

"Exercising the muscles which control the foot creates a resistance when you pull it through the water."

This was not an overnight discovery for the 30-year-old Ostergard, now an athletic trainer at the University of Nebraska-Lincoln. It took him three years, 1985-88, to invent, perfect and patent the "The Stroker."

The brainchild for his invention came in 1984, a year after he graduated with degrees in kindergarten through 12th grade physical education and athletic training from UNL. After graduation, he returned to his hometown, Gothenburg, where he worked with his father, was a substitute teacher and did some athletic training at Gothenburg High School.

During his stint as an athletic trainer, one of the student athletes injured her lower leg in basketball. At the time, doctors told the athlete she couldn't go out for the track team, Ostergard says.

Determined to treat the athlete, Ostergard put together the usual rehabilitation program of combining hot and cold whirlpool treatments to work out the strain and free weights to build endurance.

After working with the athlete, he thought there must be a simpler way to combine hydrotherapy with muscle building.

The wheels began to churn. Ostergard sat down with some wood and Plexiglas and designed a prototype for The Stroker.

Trainer walked so others run

At the time, he wanted to find a way to combine the hydrotherapy provided by the whirlpool and the exercise of the strained ankle or lower leg provided by the free weights.

While the prototype was in rough form, Ostergard says, "to me it was obvious it was a good idea," he says.

After months of refining the device, Ostergard sent a description, photograph and diagrams of his invention to an orthopedic brace company in spring 1985. The company said such a rehabilitation device didn't fit into its product line.

But Ostergard wasn't disillusioned. In fact, he kept refining his machine.

"The more times you're told 'It won't work' — it just adds fuel (to the) fire to make it work."

He returned to Lincoln in fall 1985 to substitute teach, and kept working on the rehabilitation device.

At the same time he was looking into mass production and considered having the device molded. While the particular mold Ostergard was considering would have cut down on manufacturing time, it would have cost thousands of dollars he says he wasn't willing to spend.

"At the time, I didn't have the money," he says.

"(Now), I could find investors to do that, (but) I'm not willing to give up that much of a share in it."

His other options would be to give the investor a percentage of the profits, but Ostergard says he doesn't want to do that right now.

So for now, Ostergard will continue ordering parts from five different distributors, and he will continue assembling his invention himself.

Locally, he orders plastics, rubber material and strap material.

He orders cambuckles from an Illinois company, while the strap that's attached to the buckle is ordered from a local distributor. Plastic for the boot's sole is purchased from a Lincoln plastic and graphics distributor, the rubber is ordered from a local rubber distributor. And the stainless steel that bridges the resistance mechanism and the boot is ordered from a local distributor.

"If you were to look at the parts," Ostergard says, "it doesn't look like much money."

Ostergard says it is expensive, however, to order the parts from various companies. He also says he expends a lot of time and energy assembling and marketing the device.

Conveniently, The Stroker got some practical use and some attention in January 1986, when former Nebraska football player Jeff Smith came to Ostergard for help.

Ostergard was putting the final touches then on "The Stroker," while Smith was playing for the Kansas City Chiefs and had suffered an ankle injury.

He needed a quick remedy, so he tried Ostergard's invention.

"Jeff used it (The Stroker) every weekday for one month — and he was sold, so he invested."

That meant business. Ostergard pooled his resources, hooking up with his cousin, who offered some business ideas and money for the project.

The next step was to get a patent, which Ostergard received in 1988.

Since then, several distributors made offers on The Stroker, but Ostergard declined, because no manufacturers offered to mass-produce the invention, so he would have had to manufacture it himself.

Two years after receiving a patent, Ostergard is just beginning formally to market his invention.

Although he doesn't consider himself a high pressure salesman, Ostergard says he knows that in order to sell his invention, he's got to get the word out.

"The old saying about business is a wheelbarrow applies. If you don't get behind it and push it, it doesn't go."

When Ostergard began, the only marketing he did for the product was by word of mouth. Now, like most Americans in business, he is circulating a video and brochures on The Stroker.

And he must be doing a good job. Nine of the machines are being used by NFL teams, including the Houston Oilers, the New York Jets, the Minnesota Vikings and the San Francisco 49ers.

On the local level, several Nebraska high schools and colleges have purchased The Stroker for their athletic departments.

Four of the exercise machines are available at UNL's south stadium, the University Health Center, the women's training room and the Bob Devaney Sports Center.

While Ostergard would not divulge the price of the machine, he says the product is affordable. The closest

competition, he says, starts at \$800, and he says The Stroker costs less than half that.

That's not to say the inventor isn't looking to make a bit of a profit. Ostergard says he hopes inventing will turn from a hobby to a full-time business venture.

So what else does Ostergard have up his sleeve?

The mild-mannered Ostergard doesn't know, doesn't say. Until something comes up, he'll keep working on

Even when you think you're finished with one project, Ostergard says, you're never really finished.

With his own inventions, Ostergard says he always is looking for improvements, ways to refine the products, including The Stroker.

And Ostergard takes that attitude toward inventing in general.

"I've always looked at things and thought there's an easier way than this," he says.

In the case of The Stroker, Ostergard says, there was a need, because ankle injuries are among the most common sports injuries.

"Ideas come from need," he says.

According to Ostergard, once you find the need, you have to make time to develop the idea and work on it.

"Like free time — you've got to want to be productive with it," he says.

"I think once you start thinking you've got all the answers, you start falling back."

— Lisa Donovan
Senior Editor

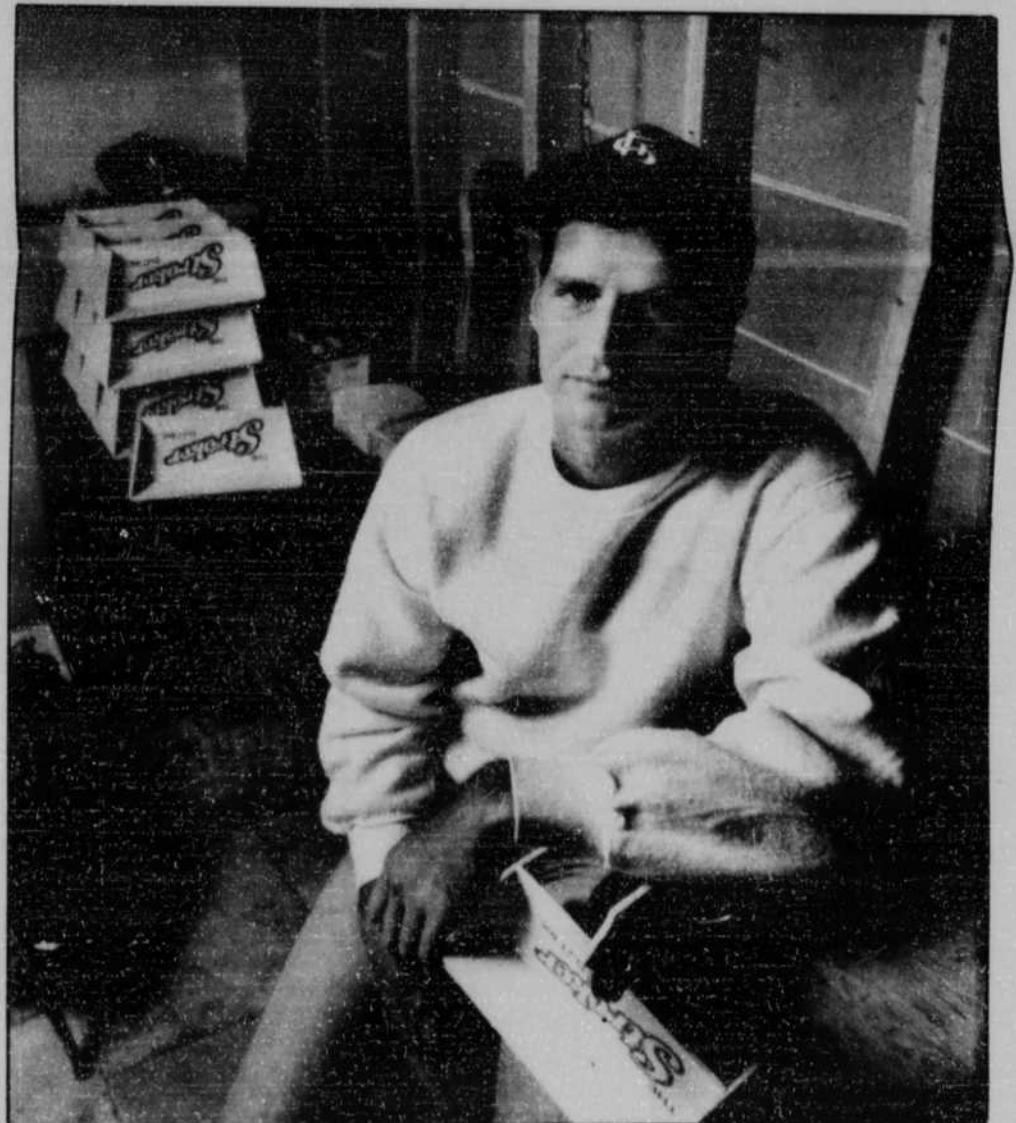


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