

Special bicycle aids injured girl

By Joan Herman
Of the Emerald

As the saying goes, "When life hands you lemons, make lemonade."

Nine-year-old Macy Stutz was handed a lemon of sorts when she was only 16 months old.

While riding in the family car, Macy and her parents were hit by a large truck. Macy's parents, Kim and Ed Stutz, were not permanently injured, but Macy was paralyzed from the waist down. She is now one of 500,000 paraplegics in the United States.

And every year, as many as 15,000 Americans will suffer irreversible spinal injuries. Traffic accidents — especially when seatbelts aren't used — are responsible for most of these injuries.

The Stutz's sued the trucking company for negligence and were awarded a trust fund to meet Macy's special needs for the remainder of her life.

That's where the lemonade part comes in.

Macy has been on crutches since she was 3-years-old. Although her handicap hasn't prevented her from leading a relatively "normal" life, using crutches for any length of time exhausts the arms.

One day, when Kim was waiting for



Macy at the Oregon State University campus where Macy takes weekly swimming lessons, a friend showed Kim a picture from the Oregonian newspaper of a new hand-powered bike designed specifically for paraplegics. As soon as Kim saw the picture, "I just knew Macy had to have that bike."

After several phone calls, Kim tracked the bike's manufacturer to the tiny town of Elmira, Oregon, about 20 miles west of Eugene. Her mother's discovery of Chris, Doug and Dale Schwandt's small business, Recreational Mobilities, just happened to coincide with their decision to "come out of the closet and into the business world," Chris says.

The business began three years ago when Doug, then a masters student in mechanical engineering at Stanford University, was "challenged" by his advisor to design an arm-powered bike for paraplegics. Stanford's engineering department had been trying to orient technical research toward humanistic goals, Chris says.

Since that time, Doug's original design has undergone "significant conceptual changes," Chris, who constructs the bikes, lends first-hand experience to his



Clockwise from top: A special hand-powered drive train enables paraplegics to enjoy one of Eugene's most popular sports. Macy Stutz, 9 has relied on crutches for the past 6 years. Now she rides her personalized bike around her school playground. Designers Chris and Doug Schwandt have launched a business building the first bikes made specifically for paraplegics.

part of the business. Before embarking on hand-powered bike building, he studied sculpture at the University and did carpentry and metal work.

Dale, a University senior in the business administration school, completes the trio by bringing his business savvy to the endeavor.

The Schwandts have sold three of their special bikes at about \$1,500 each.

Surprisingly, the versatile brothers were the first to design and build a hand-powered bike specifically for disabled people's recreation. It was not designed to replace the wheelchair, but to supplement it, Chris says.

"It's an alternative to being in a wheelchair continuously. People can go out for a spin on their bike when they want to."

The bike has adjustable sidewheels that touch down at a desired lean and also fasten down for four-wheel maneuverability indoors. The sidewheels have a sprung suspension for a smooth touchdown and they castor for cornering. The sidewheels also prevent the bicyclist from tipping over.

To maintain the bike's balance, the rider simply steers into the direction of the bike's tilt — a quality especially important for individuals with limited trunk stability. The front wheel steers 180 degrees to the left for backing up and turning around in tight spaces. The bike can also go up ramps.

Practicity aside, the bike is fun, Chris says. "If you're with someone who's disabled and they get on the bike, they go screaming down the road and come back with a big grin on their face. And you can't get them out of it. That feels good."

Since Macy started zooming around on her new "toy," she's been a star of sorts at her school. When Macy's parents took the

bike to the school playground, "all the kids wanted to ride on it," Kim says.

"It's a real catalyst for her," Chris says. "She has a focal point — a big pretty blue bike with her name painted onto it."

Now Macy can go biking with her able-bodied friends or accompany her family on long walks that would be too tiring on crutches, Kim says.

The Schwandt brothers also are designing a tandem bike that would have a disabled person in front and an able bodied person in the back, and they are marketing an arm-powered racing bike that cruises at 25 mph — a world record for arm-powered bikes, Chris says. One of their racing bikes was sold to a paraplegic triathlete, who will take his bike to New Zealand for a 2,225 mile trek.

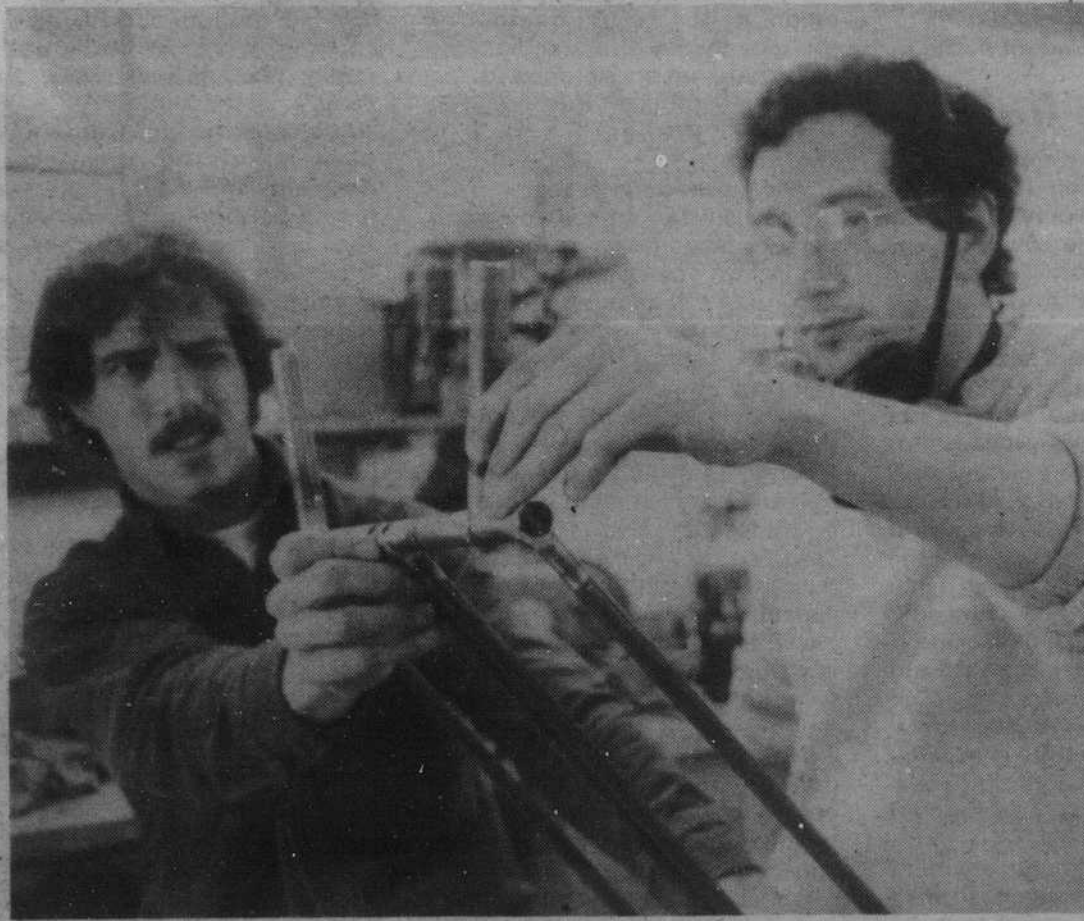
As with most burgeoning businesses, Recreational Mobilities means "a lot of sacrifice and countless thousands of hours of work" for the Schwandt brothers. "Until the sales start happening, it's a big risk and a labor of love," Chris says.

But the business is giving the three able-bodied brothers a deeper empathy for the disabled person than most "normal" people ever will know. After many test spins in the bicycle, Chris became "very cognizant about what architectural barriers are and what a different perspective on the world these people have."

Because disabled people are a relatively small minority in the United States, caring for them is a low priority in most people's lives, Chris says.

"But these people have needs just like the rest of us and those are special needs. It's a pain in the butt to take care of them, but it has to be done with some sensitivity."

Photos by Jim Goodwin



Maximum refund is \$375

Attention renters: The check's in the mail

By Brooks Dareff
Of the Emerald

The Oregon revenue department mailed 362,403 property tax relief checks worth \$83.9 million to qualifying Oregon homeowners and renters Monday — 103,000 fewer and about \$14.3 million less than last year.

Of the \$83.9 million, \$79.7 million went to low and middle income homeowners and renters under the Homeowner and Renter Refund Program (HARRP), which is available to households with a maximum income level of \$17,500. Another \$4.2 million went to renters under the separate Renter Relief program.

People qualifying for HARRP and the Renter Relief pro-

gram can still file Oregon Form 70R for 1982, says Information Officer John MacKellar. There is no "imminent" deadline, and filers should expect to wait about 8 weeks before receiving their checks.

Students living in dormitories do not qualify for either program.

MacKellar says there are probably varying reasons for the lower number of qualifying people filing this year. One cause may be that the 70R forms were sent out separately from the income tax return forms — and about three months later.

In January the Oregon Legislature asked the Department of Revenue to wait on printing and mailing property tax relief forms because they expected to implement a new

property tax relief plan — and one that might have changed the current HARRP and Renter Relief programs.

The forms mailed this April remain essentially unchanged from the forms mailed in January of 1982.

The Property tax relief form should look about the same next year. The property tax relief package that emerged from the special session this month contains no alterations of HARRP or the Renter Relief program, aside from the kind of inflation and cost-of-living adjustments made this year.

The biggest refund available this year under HARRP is \$375. Under the Renter Relief program the maximum refund is \$85. Overall, the average refund was \$231, up from last year's average refund of \$224.