

HOME/LIVING

Work continues on a better wheelchair

"Of Course We Can Build a Better Wheelchair" was the way the Register headlined my column of May 7, 1995.

Looks as if that heading was accurate if you change "We" to Susan Farriselli. The Branford industrial designer has been working intensively for 18 months on a new, improved wheelchair and she thinks she has achieved it. After seeing and trying it, I think maybe she's right.

In my earlier column, I related how Farriselli had received a \$25,000 Design Arts Award from the National Endowment for the Arts to work on an improved wheelchair. She's not quite through with it yet but has a working model that looks mighty good.

Farriselli calls it the "Nanachair" in memory of her grandmother, Christine, who was immobilized in a wheelchair in a New Haven nursing home for several years.

It was then that the granddaughter recognized defects in current wheelchairs. Among the flaws, she noted difficulty in getting in and out of one, and as "an offender to body posture" she cited "the popular hammock-style chair with its sling-seat which places pressure at the outside of the hip joint where there is minimal cushioning and no support under the hips."

"Do you think you have achieved your goals?" I asked.

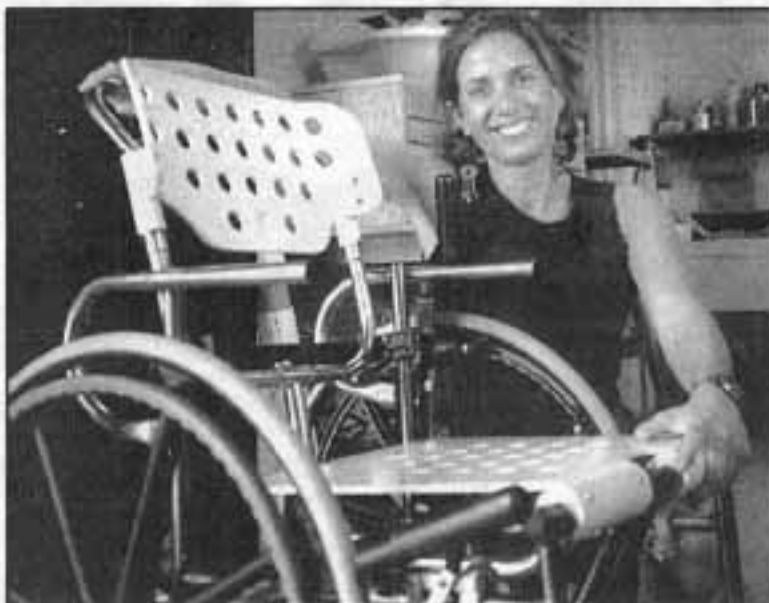
"Yes," she said. Then she chuckled. "Maybe I overdid it. I felt that a wheelchair needs to be totally foolproof."

She pointed out some of the advantages of her chair:

"My model has leg rests that fold back under the chair. They usually get in the way of a patient getting into or out of a wheelchair."

The wheelchair looks functional, nothing ornate, with its bent stainless steel frame, a spring pad and dual arm levers that permit the occupant to propel the chair forward and make turns. In the conventional wheelchair, the occupant uses fingers to turn a circular band inside the chair's wheels.

Lightweight materials have been used throughout.



Alvin V. Sizer/For the Register

Industrial designer Susan Farriselli of Branford named her new wheelchair the "Nanachair" after her grandmother.



ALVIN V. SIZER
SECOND ROUND

Farriselli placed cushions in the chair, hopped in, drove around her office and then outside on the paved driveway. I asked for a chance to try it myself and was impressed by the ease of moving around.

Her model uses Stimulite Honeycomb Cushions that permit ventilation and washing. They were obtained from Abet Medical in Abington, Penn.

Other features of the Farriselli wheelchair are solid, airless wheels and adjustable seat depth and height. "It has a range of flexibility that will fit various people," she said.

The chair weighs 21 pounds as compared with the usual 29 to 49 pounds in other models. She has

set a target price of \$2,400 which she says is about average for wheelchairs and feels, "I don't see why we can't meet that goal."

Actually, her plans for a new chair go back to 1992, Farriselli has spent a lot of money and time on this, her second prototype. She spent the \$25,000 grant; but estimates that with "a thousand unbillable hours of work," the total now reaches \$100,000.

Although she has a great personal investment of labor in her project, she has had loads of help, most from volunteers and some from readers of this column who made about 50 calls when it appeared. Six wheelchairs were donated for study. She also purchased a 67-pound Metra chair to inspect and compare.

There were two men who gave her aid and advice beyond the call of duty.

One was Rick Famiglietti of East Haven, who at 30 was paralyzed from the waist down in a motorcycle accident and is in a wheelchair. "He is a mechanical engineer and helped me a lot with advice," she said.

The other important helper was

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Gary DiNello of Custom Boasting Fabrications in Branford. "He is total master craftsman," Farriselli enthused, "so practical and so helpful to me in the matter of bending of metal."

Farriselli left her office frequently to seek advice. She talked with physical therapists at Gaylord Hospital and in nursing homes and went to trade shows, including one in Atlanta.

Even with all this effort she does not feel her mission is fully accomplished. She wants to improve on what she has already developed. Funds are a problem since the National Endowment that got her started has eliminated that particular type of grant from its budget.

She has applied for a Small Business Innovation Grant from the U.S. Department of Health. The next move is to interest manufacturers in producing her wheelchair.

Farriselli will be going to a lot of trade shows. She also has an advice-seeking session scheduled with SCORE (Senior Corps of Retired Executives) in New Haven.

She feels that no matter what the future holds for her chair, she has already gained much from her experience and stands to gain more.

"I've enlarged my acquaintances, and I've made new friends and acquired knowledge," she said. "In a place like Branford, you're bound to run into friendly people who can help you or suggest someone who can."

"I feel that if my Nanachair were never manufactured, I would have benefited and at least get more work in the future."

"But for now," she grinned, "I've got to go out there and pitch my wheelchair to manufacturers."

Al Sizer is the former associate editor of the Register. His column appears here each Sunday.