

Shop for Kids: A builder learns to work with kids.

I didn't start building till I was 25 years old. Well that isn't quite true. Some of my fondest childhood memories are of my sister, myself, and neighborhood friends building soap box derby cars, forts and kites. The technology was crude, wheels fell off, steering failed, but we had great times. We also had a great time building forts in the woods. When I was in middle school I remember another neighborhood project where we built a giant kite. It was made from dowels, duct tape and heavy paper and practically took a hurricane to get off the ground. But once it was up it would break 100 lb test fishing line and burn your hands trying to hold down.

I'm not sure why, perhaps because it wasn't cool, but all through high school, college and the military and college again (didn't finish) I didn't built anything. It was only after my second stint in college that I rediscovered building. It was little jobs at first, helping to remodel a room, some construction, a temporary diversion to VW mechanics and then I built a canoe which got me interested in building boats. I added a room to our house and built equipment for handicapped children.

After my kids were born I spent a lot of time trying to figure out things they could do by themselves so I could have time to work on our house. I was amazed at my son Ben and his friends who spent hours (with Dad's help) taking apart old radios and record players and making things with the parts. When Andrew was five he saw the curls come off a board I was hand planing and started to play with them. Soon he wanted to make his own. I cut a curve in a piece of cedar so he could plane it flat. Of course, he had to try every plane I had. He worked with my planes for four hours one day and two the next (all the while being very careful) making a collection of curls and wood pieces all planed and sanded. These and other experiences with my own children taught me an appreciation for the enthusiasm of children for real work they can do themselves.

When my oldest son started school I had a vague notion of helping out in his classroom. Little did I realize that this vague notion would evolve into woodworking, take things apart, designing educational equipment and writing

My younger son's daycare center needed playground equipment so I built a small climbing dome from electrical conduit. It was like I had built the Eiffel tower. I knew then I wanted to work with kids.

Another time I offered to take some my son's classmates to the cafeteria and have them take things apart and experiment with electricity. It turned out much better that I expected. The kids loved it. We took apart radios, worked with lights, batteries, bells and switches and they learned about tools. Many didn't know the difference between a Phillips and a slotted screw driver, but they caught on quickly. They learned it wasn't easy to take something apart, that you had to find that hidden screw holding the whole thing together. Most important, they had fun.

As my son grew older I kept volunteering and ended up helping with science experiments. At first it was hard even to walk down the halls because I felt like I shouldn't be there. Old childhood fears I guess. But most teachers were grateful for any help they could get, especially with science. So I gradually felt welcome. And built more things

While doing those first science experiments I noticed kids often don't look at details so I started designing things that would entice them to look at details yet be self-correcting. One result was a marble roll. It was made from a refrigerator door and magnet backed troughs (plastic plumbing pipe split in half) that could be placed anywhere on the door. Children enjoyed creating their own marble roll by moving the troughs around. From Lincoln Logs I got the idea for a playhouse children could take apart and put together themselves. Using notched plywood boards they could construct all sorts of creative "houses" and climb inside. Sometimes the playhouse would remain in the back of a classroom as a reading or quiet place.

Woodworking also evolved. Little tops, boxes, candle and pencil holders the yahoo stick, and do-nothing machine, kids loved to build projects. My role became to find interesting projects, break them down so kids could do them and to present them in a non-threatening way. I was amazed at children's competence. These volunteer efforts at school lead to teaching summer woodworking and science classes for the local park department and teaching "shop" for 3-6 year olds one day a week at the local Montessori school.

The reaction to all of this from both the parents and the kids was surprising. I expected them to like it, but was quite unprepared for the level of excitement and enthusiasm these activities and approach produced. For my part, I was just elaborating on those projects out in the "shop" that my father and grandfather had done with me. I went to the library, looked in the science, magic and craft books for things I thought would appeal to children, and then did them. I'd test projects and activities on my own children then in my class. I didn't invent much, merely borrowed from the past and applied my own twist. But to the kids and their parents I was Mr. Gadget.

