

South Carolina firm reflects area's local heritage



LEFT: The company received a bronze Top Job award for this hotel rail project. TOP: Grainger does his forging in an historic barn that is now engulfed by his main, 5,000-square-foot facility.

■ Although Carl Grainger started out in welding repair and structural steel fabrication, his creativity drove him to learn ornamental fabrication skills.

By Peter Hildebrandt

On a sandy, back road of South Carolina's Horry County, amid tall rows of corn and thriving tobacco plants, Carl Grainger has hammered out a thriving niche for himself.

Each morning Carl arrives at Grainger Metal Works he's instantly surrounded by a chunk of the past. A 20-foot by 20-foot tobacco barn remains at the core of Grainger's shop. In 1929 his grandfather and people from the community built the log barn in two days.

Grainger's great-grandfather's anvil holds a place of honor in the tobacco barn that is now called "The Blacksmith Shop." Carl's great-grandfather was not a blacksmith, but he used the anvil to repair tools. Grainger didn't start out as a blacksmith either. He first worked as a welder on an assembly line building

hydraulic cranes for five years. After that, Grainger worked at a structural fabrication shop, a steel stair company, and then he and a partner had a shop in Conway, SC, where they did mostly repair and structural metalwork.

Though the business was successful, Grainger wasn't satisfied. "I like being able to see the work I've done. I prefer not having to say, 'Behind that sheetrock is the structural steel that we installed. You can't see it, but it sure is a nice building, isn't it?'" Grainger needed to be able to bring some of his creativity into metalworking.

He started taking blacksmithing classes. His first class was at Peter's Valley Craft Center in New Jersey. Instructor John F. Graney taught Grainger how to make leaves and daylilies and other flowers. Then he attended classes at John C. Campbell Folk School in Brasstown, NC.

For your information

NOMMA member: Carl Grainger, Grainger Metal Works, Nichols, SC.

Grainger's background: Grainger began in welding repair and structural steel fabrication. He learned ornamental fabrication skills because he wanted to be able to see his work (not have it covered up by trades work).

Noteworthy project: Grainger won a 2004 Top Job bronze award for a serpentine stainless steel tube railing fabricated for the Myrtle Beach Radisson Hotel lobby.



Memorable Quote: "Networking at NOMMA conventions has made 'tag-teaming' with other shops possible. NOMMA is an important part of my company."

In his third class, an architectural class with Walt Scadden as the instructor, he decided to make a garden gate.

"On Monday, Walt had us design what we wanted to make as our class project. I sketched my gate design on a small steno pad. Walt looked at my drawing and said he didn't think I could do it in a week. I told him if he would just guide me, I could do it. After many long days and late nights, on that last Friday afternoon, show-and-tell was held in the community room for all the different classes to show what they'd worked on for the week. When I carried my project in, it was still warm!" The gate is displayed in the shop. Many have tried to purchase it, but the gate remains "not-for-sale."

After coming back from that third class, Grainger told his partner that within a year he would be on his own doing ornamental blacksmithing. Sure enough, a year later—almost to the day—he moved out to the family farm and started Grainger Metal Works. What once was a log tobacco barn



The company crafted this gate out of aluminum. The forged scrolls are made of 3/4" sq. forged stock. The frame is 1/2" x 1 1/2" heavy hammered stock, and the finish is bronze powder coat. Approx. labor time: 117 hrs.

with the lingering smell of years of cured tobacco is now a blacksmith shop where a coal forge is creating its own unique aroma.

Presently the shop consists of

almost 5,000 square feet, completely engulfing the intact 1920's tobacco barn. As with most small businesses, Grainger has to wear many different hats.

He is the design department, the lead blacksmith, and the shop foreman. He has four staff members: a blacksmith apprentice-installer, two shop fabricators, and Marti, his wife. Marti has worked as the company's office manager for two years. Grainger has stayed busy enough that he's never had to lay anyone off.

The challenge for him now is finding the right balance between enough work and too much work. When too much work is the case, NOMMA membership has helped keep his workload manageable. "I can subcontract one aspect of a job to another NOMMA member and know they will supply me with quality workmanship. Networking at NOMMA conventions has made 'tag-teaming' with other shops possible. NOMMA is an important part of my company."

Though Grainger Metal Works creates walk gates, driveway gates, features (such as over a fireplace or room divider), and furniture, they are primarily a railing shop. Private residences and oceanfront hotels throughout the Myrtle Beach area feature Grainger's work. One of these includes his award-winning stainless steel railing in the Myrtle Beach Radisson Hotel lobby.

This project just received the bronze award in NOMMA's Top Job for Interior Nonferrous Rail for 2004, and proved to be one of the most challenging projects for Grainger Metal Works. The job featured a serpentine stainless steel tube rail with 1 1/2 inch by 3 inch by 11 gauge rectangular tube rolled the hard way. The challenge came with a large curved staircase. Special tooling was created for a CP 60 rolling machine that produced a controlled helix for the inside and outside radius of the staircase.

Carl Grainger's creativity transfers wonderfully from the drawing table to the metal. One client wanted a railing to look like a saltwater aquarium, so Grainger downloaded pictures of various saltwater tropical fish from the Internet and made eight different fish

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templates. The templates were used to plasma cut fish blanks from 11 gauge steel sheet. Then a P-9 Pullmax was used to dish and texture the blanks, turning them into realistic two-dimensional fish. Painted to look life-like, they were attached to a horizontal ocean blue wavy bar railing. Grainger then added some sea grass forged and formed from copper, several forged iron seahorses, four custom light fixtures, and the result was another satisfied customer.

Grainger does a lot of forged scrolls in his shop. Full-scale designs are drawn onto a steel table with soapstone. His apprentice then takes a piece of soft solder, shapes it to the design, and then tolls it out to measure it so he knows how long the metal will need to be cut prior to forging. Various scroll forms are used, and sometimes new scroll forms are made for special projects.

Leaves and flowers are used to embellish many of the projects for Grainger's work. While we stand and watch in the blacksmith shop, Carl hammers out a leaf by hand, giving the leaf just the right amount of curvature to bring it to life and adding



Carl crafted this garden gate during a class led by Walt Scadden. Although many clients have offered to buy the gate, it remains "not for sale."

Samples of items that Grainger has made in the past, some of which appear to be leftovers from prior jobs, are displayed on the wall of the forging area.



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enough veins to insure its leafy texture. Large leaves are forged from aluminum sheet using the power hammers. Some projects require a lot of leaf work or textured material and some projects will be simplistic with clean lines and no forging. By combining blacksmithing techniques and basic fabrication practices, Grainger Metal Works has been set apart from the competition.

Grainger also enjoys mixing media such as iron, wood, and glass. His use of nature reflects the Carolina coastal environment; his wading heron and waterfowl in flight above an iron cat-tail marsh make incredibly distinctive gates. A lot of Grainger's designs are also influenced by the Charleston, SC heritage. Charleston is well known for its ironwork, and its surrounding areas also reflect Charleston-styled iron-



Samples of metalwork are displayed on the walls of the forging area.

work—as clients often refer to this design style.

Creating designs has become much easier with the acquisition of Auto CAD, which Grainger uses to design most of his work. "The CAD drawings allow us to give a more professional presentation to the client." Many hours of shop time are saved by first

building the project in CAD. Drawings are then produced for the shop. "CAD has been one of the best tools purchased for our company."

Besides all the basic fabricating tools and equipment, the shop has two gas forges, a coal forge, two power hammers—a Little Giant 50# and a Big Blu Air Hammer—and a Pullmax P-9, which is used for dishing, planishing, and creating texture. Grainger has recently added a batch oven powder coat system so that he can offer the best possible finished product for his clients. He also feels that his service gives him an advantage over the competition.

Though Grainger gets customers either through the Yellow Pages or his website, many come to him through referrals. He likes everything he creates to be pleasing to the eye and will turn jobs down if he does not agree with the concept of the design. "One of the things that makes us unique is that we offer a complete in-house package for our customers: CAD drawings and design service, custom forgings, manufacture, powder coating, faux finishing, and installation service."

When Grainger first went into business for himself, he wasn't sure he could afford the cost of NOMMA membership, but now he says the dues are worth every penny. NOMMA keeps the membership abreast of the latest developments and information about the trade. Education in his trade has been important to Grainger, and NOMMA plays an important role in education. "I have found NOMMA to be a very sharing and open organization. When I have asked for information I have never had anyone say, 'I'm not telling you, call somebody else.' I now have access to many other reputable blacksmiths and fabricators."

Carl Grainger has been able to give back to NOMMA in a unique way. At the recent NOMMA convention in Sacramento, he used auctioneering skills he remembered from his grandfather's tobacco auctioneer days to help raise money for the NOMMA Education Foundation. "The auction was a lot of fun, and it was one small way for me to help this organization that's been so beneficial for me." 🍀

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