

Vol. XXVII, No. 6

Ornamental & Miscellaneous Metal

November-December 1996

\$4.00

Fabricator

Official Publication of the National Ornamental & Miscellaneous Metals Association



A Tribute To Castings
Finding and Retaining Workers

Finding Good Workers

As more and more young people vie for white collar jobs, the metalworking industry is left with a serious shortage of trained craftsmen.

By Eric Minton

Bill Valerius has seen them go. He's not seen many come, though. The founder of Valerius Metalsmithing Ltd. in Bensenville, Ill., has been doing high-end artistic blacksmithing for more than 50 years, during which time he has seen the number of true craftsmen among his colleagues dwindle. "From the period after [World War II] when the old-timers started dropping out, the quality started going down, too, because there was such a pent-up demand," he says.

This is no mere nostalgic grumbling. Valerius wants to retire, but he can't until his daughter Karin, who now owns the business, finds a qualified craftsperson to replace him. "I've had an ad [in *The Anvil's Ring*] since January, and I haven't gotten one phone call," she says. "And we're a high-end metalsmithing shop. We need someone who at least has skills and understanding of the craft and good math aptitude. You'd be surprised how many men can't read a ruler."

Fabricators aren't surprised anymore. Lack of adequate training and development of new skills are perhaps the biggest problems facing the industry in the United States today. Metalsmithing shops across the country are telling the same tales, of declining craftsmanship and a shrinking talent pool, of diminishing interest in metalsmithing among young people, and obstacles to recruiting and keeping young talent long



When Junior graduates, he will likely seek a job in a technical field or even a fast food restaurant. Unless swayed otherwise, he probably won't consider a career in metalsmithing.

enough to train them. This epidemic threatens the industry on two fronts: demand for ornamental metalworking continues apace so that meeting that demand with quality work becomes more difficult, and Europe continues to produce good craftsmen through its metalsmithing schools and apprentice-

ship programs. No one thing can be blamed for the current state of affairs in America. Rather, the talent gap is the result of several sociological and economic trends that have drained many a manual trade of its skilled labor but are hitting ornamental fabrication the hardest.

For one thing, when our economy began distinguishing its workers by the color collar they wore, more and more young people aimed to wear white. "We have an overabundance of kids going to college to become professionals. We've got a shortage of people becoming plumbers, electricians and [doing] our kind of work," Karin Valerius says.

"The most difficult people to find are high-end forge people," says Gib Plimpton, executive vice president of Myers & Co. Architectural Metals Inc. in Basalt, Colo. "The reasons for that boil down to the perception in the United States that this isn't the kind of work people want to be doing. Hands-on craftspersons are not looked at here the way they are in Europe," i.e. with respect.

The advancements of technology, especially in computers and communication and their applications, also began drawing more people who would have had an aptitude toward skilled trades. Furthermore, the dramatic rise in the service sector the past 20 years has made easy employment readily available to teens and young adults, workplaces with which fabrication shops can't compete. ↪

"This type of work requires a lot of strength, physical exertion, and being around a lot of heat, and not a large number of people want to do that today," says Bill Merry Jr., president of Herndon and Merry Inc., in Nashville, Tenn. Starting pay at his shop may be comparable or better than that of a fast food joint or department store, but he can't offer flexible work hours, free food, or merchandise discounts.

Of course, long-term pay in a metal shop improves significantly over service sector employment — as if that mattered to myopic teens — but even then most fabricators run into the problems typical of many a small business competing with larger industries. "Middle Tennessee has become automobile manufacturing oriented," Merry says, noting the nearby Nissan and Saturn plants. "These companies need the same kind of people I need, but not only are their pay packages richer, their benefit packages are extremely rich, and it's difficult to match." Merry goes further than these qualitative economic factors and points out a sociological trend: making things with your hands is no longer common prac-

A student may gain a new perspective of ornamental metalworking if he or she sees some of the beautiful objects that our industry produces. This headboard and bench shows that metalworking offers a form of creative expression.
Fabricator: Myers & Co. Architectural Metals, Basalt, Colo.



tice. "That's a rare commodity today, products made from scratch," he says. "We find it unusual to find someone oriented that way. Young boys 80 to 100 years ago, by the time they were 18, had made a lot of things. They made their own toys, made their own playhouses. Nowadays, you go to Toys R Us and buy a playhouse. You find people who come to us with a good high school education who have never made anything."

Such economic and sociological at-

titudes are hard to overcome. Karin Valerius thinks that even if more training programs were available to teens, blacksmithing would need to improve its image in order to attract students. "When people think blacksmithing they think about horseshoeing, but they don't know the art side of it," she says.

That is precisely why Myers & Co. Architectural Metals Inc. uses the descriptive term "architectural metals" in their name. "We have blacksmiths and

We've Got the Flexibility You Need.



This smartly designed hydraulic bender offers multiple locators in the table for quick-change attachment pins to give you the maximum leverage for hundreds of bending applications. Bend bar stock, handrails, structurals—even tube and pipe—quickly, accurately, and best of all, economically. For \$6,500, the American-made BenteC Ram Bender is the perfect addition for any fabrication, manufacturing or maintenance application. Call today and ask about our lease/purchase program.



4905 Rocky River Dr. Cleveland, Ohio 44135
1-800-317-2363

A Division of Kiffer Industries, Inc.

we do blacksmithing, but we don't use the name 'blacksmith,' otherwise you just mislabel," says Plimpton. He thinks altering perceptions starts with architects, owners, and designers with whom fabricators work. "We try to teach them how much is involved in doing our kind of work compared with other trades involved in a building — the sheet worker, plumber and electrician."

Still, it's a long leap from there to getting students to see fabrication as anything other than hard labor. "When you think of artistry in steel, you're thinking of a sculpture," Plimpton says. "So you have hundreds of feet of railings and doors and balcony grill work. The people doing that are craftsmen, but they aren't looked at that way, they are looked at as laborers. And kids in school aren't pointed that way by parents or schools. Sculptor, yeah, that's a whole different ball game."

Says Karin Valerius: "If you have some pictures and show artwork and let [students] get an idea of what this business does, what they could expect in the future, the gratification of

I've called technical colleges, and none of them offer metalsmithing courses or blacksmithing courses. What they teach is tool and die.

doing a beautiful job and learning design and working with architects and interior designers — if they were made aware of this, they might have a better understanding of blacksmithing." And, thus, more interest in pursuing it.

But even if they wanted to pursue it, training opportunities are scant. "I've

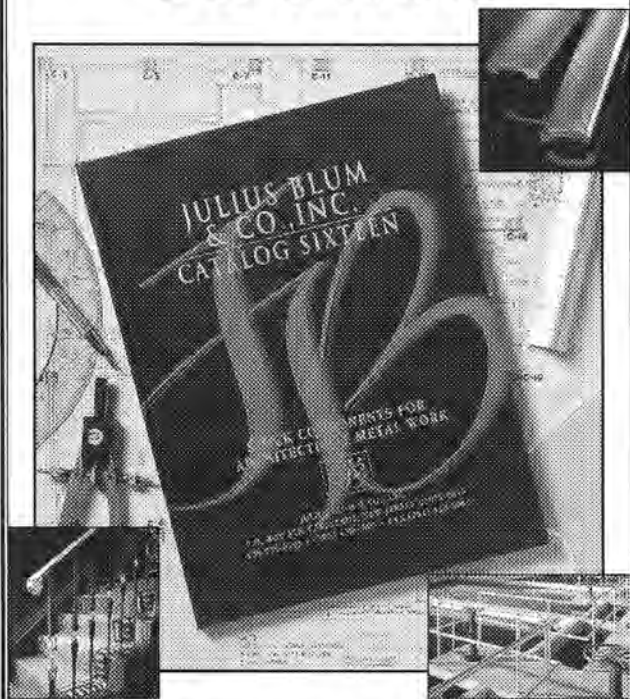
called technical colleges, and none of them offer metalsmithing courses or blacksmithing courses," says Karin Valerius. "What they teach is tool and die." Most fabricators can count on one finger the number of secondary schools around the nation that teach metalsmithing and forging. The Artist-Blacksmiths' Association of North America (ABANA) runs a series of courses and seminars. Some fabricators also have offered courses in various practices, including Bill Valerius, who taught advanced forging techniques in a five-week course for fabricators back in 1981. He taught the course during the slow winter months when he could devote his attention to students who worked at his shop from 8:00 a.m. to 4:30 p.m. every day.

"I had only three fellows," he recalls. "After that I got a lot of shops calling up, but they only wanted to send their people for two weeks, or send them a couple weeks, then bring them back home and send them again when they had free time." Such scheduling was not only inconvenient for Valerius' shop, but it wasn't conducive to really learning the trade.

That is the key issue when it comes to training a new generation of metalsmiths: it takes time. "It's not something you can go for one year and learn, it's a whole apprenticeship," says Karin Valerius.

That is the approach that European industries, including metal fabricators, have taken to secure talent for the next decade. The advent of mass manufacturing alongside the in-

CATALOG 16 YOUR COMPLETE SOURCE



Since 1910, Julius Blum & Co. has provided ornamental metal components of high quality to the architectural trades. Today, Julius Blum & Co. is the industry's most complete source for architectural metals. Our latest publication, *Catalog 16*, describes our full line of architectural metal components:

JB® Glass Rail; Connectorail®; Colorail®; Carlstadt® Railing Systems; Traditional Railings; Elevator Cab Components; Handrail Brackets; Expansion Joints, Thresholds and Mouldings; Tubing, Bars & Shapes in Bronze, Aluminum, Steel and Stainless Steel.

Catalog 16 also includes a complete Engineering Data section to assist in the proper structural design of various handrail systems.

Contact Julius Blum & Co. for your copy of *Catalog 16*.

JULIUS BLUM & CO., INC.

P.O. BOX 816, CARLSTADT, NEW JERSEY 07072-0816
800-526-6293 • (201) 438-4600 • FAX (201) 438-6003

creasing social awareness of child labor issues seemed to doom apprenticing except in the most specialized of crafts.

But as quality suffered, and as France's guilds continued to thrive even in the high-tech post-War age, many other European industries instituted variations of apprentice programs, many combining work training with school-work. *Les Compagnons*, still the model apprentices, begin by working in a shop under the constant eye of a master or mentor. Then, after a couple of years learning the rudiments of their trade they move from shop to shop learning various techniques and applications. Starting their apprenticeships as early as age 15, *Les Compagnons* become working craftsmen by the time they are 18, and can be masters in their early twenties once they pass a test or complete a special project. In other countries, apprenticeships begin at age 14.

Not only are greater numbers of European firms embracing apprenticeships as a training tool, but so are American school systems. The U.S. Department of Education's "School-to-Work" initiative pushes, among other concepts, both

The advent of mass manufacturing alongside the increasing social awareness of child labor issues seemed to doom apprenticing...

apprenticing and mentoring as ways to get high school students to transition more effectively to competitive employment. The irony for fabricators, however, is that the school-to-work initiative's primary focus is skills in technological fields. Furthermore, child labor laws don't allow youths under 18 to work in fabrication shops.

"[Ages] 14 to 18 is when you learn it," says Ernest Wiemann of Ernest Wiemann Iron Works in Tulsa, Okla. "When they're 18 they don't want to work four years to learn something, and to be a good ironworker takes five or six

years. You have to like it and be able to live it." He has lived it most of his 80 plus years, and he started work as a metalsmith four hours a day in a German shop when he was 13. He emigrated in 1928 and has owned his own business for 56 years. In commenting on the talent pool now, he says, "You can't find them. They're just not any available at all. You used to have some immigrants from Germany and England, but they quit immigrating from there."

Like most shops unable to hire skilled labor, he trains his own, a proposition becoming increasingly difficult in today's economy. Myers & Co. Architectural Metals Inc. is lucky in that its 60-person business has three areas: structural metalwork, associated rails and stairs, and ornamental blacksmithing. Even with five blacksmiths and several helpers and a location in Colorado that can attract talent from around the country, "We already have run out of talent," says Plimpton. Usually, he has people from other areas of the shop develop an interest in forging and gradually train to become ornamental metalsmiths.

Yet he, like smaller shops, hits an



BEND IT

THE WAY YOU WANT IT

Richards Multiform Hydraulic Utility Benders give you more bending capability for pipe, solid stock, square or round tubing, plus up to 180° bends with articulated tooling, and quick-change tooling. For total bending capability and greater repeatability, you can choose from a full line of Richards Rotary and Ram Benders with numerical controls. And we'll show you how to take the mystery out of metal bending, with our 12½ minute video. Call for more information.



Model MUB 10 bending square tubing

RICHARDS

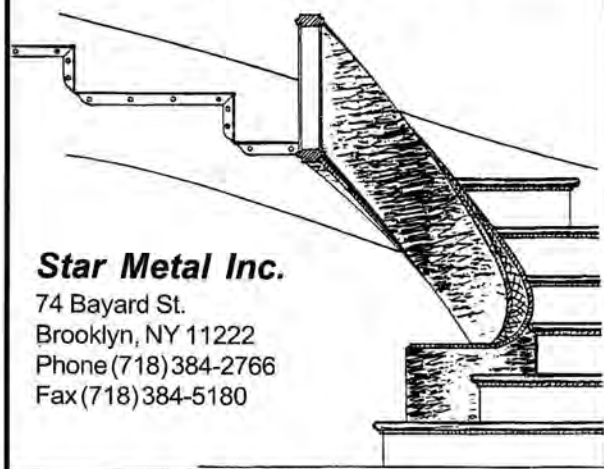
903 North Pitcher Street
Kalamazoo, MI 49007
616-343-4684
800-253-3288
FAX: 616-343-9133

Circle 30 on Reader Service Card

Design, Concept, and Fabrication Of Balanced Stairways

◆ In Most Metals ◆

Custom Built To Suit Any Space or Style Requirements



Star Metal Inc.

74 Bayard St.
Brooklyn, NY 11222
Phone (718) 384-2766
Fax (718) 384-5180

Circle 124 on Reader Service Card

economic snag when it comes to training in-house. These people must be paid, but the shop isn't getting immediate productivity from the wages. And what merits as suitable pay for a craftsman during a four-year apprenticeship aren't adequate wages for a young adult with a family. "You're not going to keep people interested in any line of work unless you let them grow and accommodate them," Plimpton says. Solutions, then, are as multifaceted as the problem:

- Fabricators must convince the general public (especially students) their work is a profession of rich heritage and artistry that, for the truly exceptional, can literally put them on top of the world; but they must do so without diminishing the pride that comes with being a skilled laborer.

- Fabricators must establish schools for metalsmithing, either setting up their own long-term academy or helping a local college or vo-tech school launch a metalsmithing program. Once such a program is established, they must continue to support it with internships and various mentoring programs.

- Fabricators must edge their way

Fabricators must convince the general public that their work is a profession of rich heritage and artistry.

into the school-to-work initiative on two levels. At the political level, they must convince education reformers that school-to-work transition needs to include skilled labor occupations as well as high-tech ones. At the local level, they need to provide some form of mentoring and apprenticeships even to high school students without violating child labor laws. For instance, because math skills are so sorely lacking among applicants, "apprentices" under 18 can focus on the design and calculation side of the business, thus giving them a better understanding of the big picture when they first pick up tools in the shop.

- Fabricators must get paid what their

skills are truly worth, a pay scale that applies not only to today's cost of production, but the cost of keeping America's collective skills in this industry competitive by training future generations of metalsmiths.

True apprenticeships, from silversmiths of medieval lore to electricians today, culminate in a test for certification and the fable of master. Ornamental fabricators have no such formal certification process, and though creating such a program is bound to create political squabbles within the industry, it would also give young talent a goal that inspires them to get through the lean years of learning.

"The future is not bright," says Merry. "I don't see anything on the horizon that makes me think things will get better than they are now."

Without some formal, long-term education and training program, says Karin Valerius, ornamental metalsmithing "is going to be a dying art."

At least in the United States. □

Mr. Minton is a freelance writer based in Warner Robins, Ga., and is a regular contributor.

HAPPY HOLIDAYS

from **GTO** INC.

GTO/PRO

AUTOMATIC GATE OPENERS and AUTOMATIC GATE LOCKS

- Low voltage system and battery back-up • Swing and Slide Gate Openers
- Swing Gate Push-To-Open or Pull-To-Open • Solar power compatible
- Single and dual gate operation • ADD-ON ready for many control devices ...
- GTO** remote control transmitters, wireless key pads, push buttons, exit devices, **GTO** security locks and much more.
- Hundreds of inquires referred to Dealers and Distributors each month.

Call 1-800-543-GATE(4283) for a distributor in your area or to join the team of **GTO/PRO**essionals.

Come See The NEW
GTO/PRO Slide Operator
 at METALFAB '97
 Booth 206/307

Ron Young SCULPT NOUVEAU

Offers you

3 NEW VIDEOS -

"FINISHES FOR IRON, STEEL,
AND ALUMINUM."

"HOT PATINAS FOR BRONZE,
BRASS, AND COPPER."

"COLD PATINAS FOR BRONZE,
BRASS, AND COPPER."

BOOKS by Ron Young

"Methods for Modern Sculptors"

"Contemporary Patination"

and

COLORED DYES for
ALL METALS

For Information &
To Order 1-800-728-5787
fax 619-741-1074

Metal
Finishes

Circle 56 on Reader Service Card

Circle 64 On Reader Service Card