



Newsletter      No.20





# ATF NEWSLETTER

*Produced for the American Typecasting Fellowship*

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Number 20

## *Charlotte Conference Soon Underway*

Time is fast approaching for the tenth biennial Conference of the American Typecasting Fellowship at Charlotte, N. C., September 27-29, 1996. If you haven't already made plans to attend, there may still be time to get your reservations in—if you hurry.

Pat Taylor and Rick Newell, coordinators of this meeting, report nearly 50 individuals presently registered. Hurricane Fran, which devastated eastern North Carolina, has done no damage in Charlotte sufficient to merit cancelling the meeting, so all plans are “go.”

In addition to the regular meeting, a one-day technical session will be held Monday, September 30, on operation and maintenance of the Monotype keyboard. Julia Ferrari, a graduate of the English Monotype Keyboard School, will conduct the session.

As in past years, the regular Conference agenda is filled with curiosities only true type fanatics would appreciate. Friday morning will be devoted to various aspects of American Type Founders—history, death, rebirth. Friday afternoon will include discussion of Monotype history with special attention being given to the centennial of Monotype's founding in 1897(?). And the day will be capped off by a hands-on visit to Heritage Printers, one of the very few remaining letterpress book printers.

Saturday sessions include technical reports on such diverse subjects as photopolymer plates, patent models, Monotype type drawings, Monotype University, and an open discussion on the care and feeding of a hot metal shop.

Afternoon sessions will include foreign reports and discussion of formal teaching of the book arts today. The keynote speech at the Saturday evening banquet will be presented by Eckehart Schumacher-Gebler, proprietor of Workshops and Museum for the Printing Arts, Leipzig, Germany (see details elsewhere).

Sunday events will include an auction of letterpress items with special emphasis on Monotype and linecasting items.

**If you are not yet registered, contact Pat Taylor immediately. His number is (803) 831-1267.**

If you have never attended a meeting before, this article is written for you as a means of giving you some perspective on what you are likely to encounter at Charlotte.

Though each of our nine previous meetings has been unique, there is a common thread that runs among them all. Perhaps it's best summed up by a comment made to me at the Amalgamated Printers Assn. Wayzgoose earlier this summer at Cincinnati. It went something like this: “Our amateur organizations have nice meetings and they're lots of fun to attend, but the ATF Conferences seem more ‘driven,’ like those guys really take their stuff seriously. I'll probably never cast a piece of type, but I sure enjoy just being around them.”

*(Continued to page 2)*



### **Every 1996 Conference Participant to Receive Keepsake Casting**

The symbol shown above has been designed and turned into a traditional 48-point matrix for casting and presentation to all participants at the 1996 ATF Conference. The design was developed by Rich Hopkins with guidance from Dave Peat and John Horn, and the actual matrix was cut by Jim Rimmer of Vancouver, B. C. To add to its authenticity, Paul Duensing completed an engraved pin which Rich has installed in his Thompson body piece so the keepsake casting will be done complete *with pinmark*.



### **Keynote Speaker Owns Massive Collection Of Foundry and Monotype Paraphernalia**

Eckehart Schumacher-Gebler was born in Germany July 13, 1934. He served a full apprenticeship and was employed as a journeyman compositor working for various printers and trade composition houses. Over time, he came to feel the clients whose work he was doing were not being adequately served, so that, with typical boldness and courage, he opened his own business. Hot metal, photocomposition, photo-process lettering and ultimately computer-generated type helped his operation to become one of the largest shops in Munich, famous for its high standards of quality. His widespread interest in type has resulted in publishing a Christmas keepsake book for customers and friends for the past 16 years (each volume is set in a different typeface and with an extensive note about the face and its history). He also publishes yearly a typographic calendar featuring 12 or more types and their designers—both digital and metal, contemporary and historical.

In the 1970s he began collecting typefounding artifacts as various European foundries went out of business. By 1982 he acquired over two metric tons of mats when The Bauer Type Foundry closed its doors in Frankfurt, as well as all of the mats (many dating back to the 1700s) from the historic Reichsdruckerei, the German National Printing Office, in Berlin. When English Monotype sold off the mats in their Specimen Printing Department in the 1980s, he amassed the largest collection of Monotype matrices in the world.

In 1991 he discovered that a classic and famous old printing and publishing house in Leipzig, the Offizin



*Camera and paper cutter in hand, our keynote speaker Eckehart Schumacher-Gebler (Photo thanks to Paul Duensing).*

Haag-Drugulin, established in 1849, was going to be sold. As the scrap-metal dealers hovered, he mounted a rescue operation and saved the firm as a working museum. To it, he added the resources of Typoart, the collectivized East German typefoundry (which was itself the amalgamation of seven older foundries).

Mr. Schumacher-Gebler lives in a picturesque resort town south of Munich with his wife and four children.

*—Submitted by Paul Duensing*

### **The 1996 Conference** *Continued from page 1*

The overriding exhilaration at our first meeting back in 1978 was the discovery that there were other people—and several of them, too!—who also enjoyed the art and technology of typemaking in all its many aspects. It was our first opportunity to share knowledge and swap stories, and it also served as a great opportunity for users of type to learn a lot more about how it was made, as well as who was making it. From the outset, we have defined “typemaking” broadly, to include every mechanical means from the hand mold to the foundry caster, from the Monotype to the Linotype, and also including Ludlow operators, Nebotype users, and ... well, you get the idea.

The mere opportunity to talk one-on-one with another person interested in typemaking is reason enough to attend an ATF Conference. Our Conferences have always included plenty of time for one-on-one discussions, but they’ve also included a good variety of more formal presentations on the practical aspects of type making and linecasting. Yes, we have presentations of historic relevance, but you’ll always find user-oriented sessions on such practical matters as how to move a machine, how to get three-phase power into a residential setting, how to make a machine work, and so on. For the observers, we’ve also included sessions on what makes good type, who is making type, how to buy type, etc.



Our meetings started because we had a wonderful time being with each other. If, in more recent years, we've seemed "driven," it's because we've come to realize that on a worldwide basis, we find survival of this fascinating technology is resting squarely on us—and those out there who still have not joined up with us.

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***None of us is under any illusion that hot metal will ever stage a comeback ...***

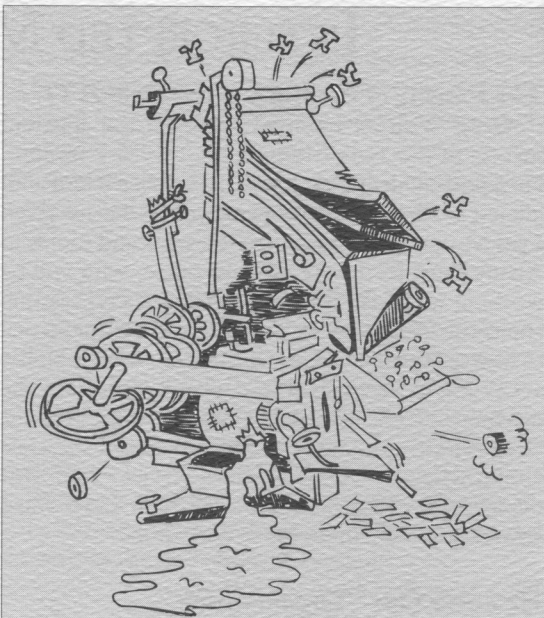
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None of us is under any illusion that hot metal will ever stage a comeback, nor that the technology is in any way superior to modern-day processes. Yet we are keenly aware that it's a tradition of over 400 years in the making which simply should not be allowed to die because of changes in technology. Any truly savvy modern graphic designer will readily subscribe to Fred Goudy's statement: "The old boys stole our best ideas." There's a wonderful tradition, a wonderful field of knowledge, a marvelous and fascinating group of machines, and an enviable discipline related to fine letterpress printing. (We could also convincingly argue there's a very fine, subtle, yet certain feel of quality involved in the well-done letterpress piece which simply is unmatched by modern computer-generated printing.)

All of this is what we're all about. We love it. We practice it. We want to share it. And we'd love to see it perpetuated.

I paraphrase the manager of a Pittsburgh commercial printing facility who said this to me back in the 1970s: "You know virtually every tour group we've ever taken through here has listlessly wandered through the computerized photocomposition areas, but they always have become animated and captivated upon seeing our Linotypes in action."

There are many persons in the American Typecasting Fellowship who feel strongly about allowing the present and future generations the opportunity to see this marvelous technology in action. If you're in agreement with these ideas, you owe it to yourself to get to Charlotte for our Conference in September.



*This simply must be the saddest Linotype machine I have ever seen depicted. It's so pitiful you almost have to laugh. The artist obviously understood the machine very well, and the drawing serves as an excellent illustration for a promotional piece recently issued by Hot Metal Services, Atlanta, Ga., advertising a 20% off sale on Lino/Intertype parts. Call (800) 542-2508.*

### ***About This Newsletter***

The *ATF Newsletter* is published "occasionally," as time and inspiration come available, by Rich Hopkins, P. O. Box 263, Terra Alta, West Virginia 26764. If you are into computerized communication, his e-mail address is [WVTypenut@aol.com](mailto:WVTypenut@aol.com).

The American Typecasting Fellowship was established in 1978 by a group of individuals who wisely *prohibited* the establishment of a formal organization, election of officers, and collection of dues. Therefore, the only "official" representation of the group is the mailing list maintained for this *Newsletter*. You may get on this mailing list by sending \$10.00 to cover the next five issues of the *Newsletter*, if and when they are published. If you're overseas, please send \$20.00 U.S. currency.



## INTERCEPTED MESSAGES TO ATF

### *The Placing of Pivotal Casters from ATF*

**Greg Walters** reports further on the apparent success of the 1995 Monotype University sessions. He reports student **Dan Jones** has contacted him with interest in restoring a script pivotal caster. He has given a gas Monotype and some starter mats and molds to **Amos Paul Kennedy** of Milwaukee, who will be working with **Lisa Beth Robinson** in a typecasting enterprise. Additionally, Greg has sold a script pivotal to **Marty Resneir** of Guysville, Ohio, who publishes a Civil War newspaper and wants to restore the machine to Civil War era as much as possible. Finally, Greg reports sending a 72-point Barth to the Dale Guild, where it will be put into service. With that shipment also went a normal pivotal caster for **Howard Bratter** to install in his New York shop.

### *He Loves Our "Organization"*

The American Typecasting Fellowship is the most easygoing organization I've ever been in contact with. I chuckle every time I get one of your mailings because I'm so used to the almost desperate pleas for dues, meeting attendance, committee work, or club officer candidates. As a former treasurer of the Phoenix Craftsmen Club, I can appreciate your careful dedication. I'm a retired letterpressman still in demand as a call-in for shops without enough experience to solve basic letterpress problems.

—Hugh Woodruff Glendale, Ariz.

### *Newsletter Is Well Worth the Wait*

Please don't apologize for the time lapse between journals. They are well worth the wait, and an article written about the 1994 convention was written in a way which made it feel it took place last week. I am impatient with myself, and often turn out work which could have been improved on with a little more care and time. The true craftsman will let nothing deter him from a perfect job. And if I were able to confer the title of "craftsman" on anyone, it would be you for the care and love of the art which shows itself in every issue.

—Timothy Trower Springfield, Missouri

### *Pickle Bucket Cooling for Ludlow*

"Jim Walczak writes about 'A Self-Contained Cooling System.' I had a similar need several years ago when my so-called cooling unit for my Model M Ludlow went kaput. My solution was not quite as

involved as Jim's. I bought one of those garden recirculating pumps and stuck it in a 5-gallon pickle bucket. Cost me \$45, I think. Got clear new water lines to replace the old ones, made two or three simple connections and I was nearly ready to go. The most time spent was tying into Ludlow's 220 service to branch out with a 110 service. I used it 10 years before I sold the Ludlow, but understand it's still working fine."

—Bill Venrick Lancaster, Ohio

"We knew ATF had met once in Oxford (on our doorstep!) but were abroad at that very time. Mind you, then we did not have the casters, just several letterpress machines. Current tally is a Vandercook, Farley, Pearl, Arab, Albion, 5 Adanas—and of course 3 comp and 1 super caster—all in a stone barn belonging to our stone farm house circa 1290."

—David Bolton via Internet  
Marcham, Abingdon, Oxon, England

### *Now About Those Quotation Quads!*

**Roy Rice** of Atlanta, Ga., read the last issue of the *Newsletter* closely enough to see my commentary about casting quotation quads on the Thompson (which was a footnote to discussion of same by **Arvind Patel** of Ahmedabad, India). Patel indicated the need to have special cams made for the machine before he could cast the hollowed out quads, but Roy sent along a few samples he'd cast himself, saying the project was "no big thing." Apparently, according to Rice, Patel must have a very old machine, for his American caster needed no special fittings whatever to accomplish the task.

### *Jerónimo Squires Gets 'Written Up'*

**Jerónimo Squires** of near Seattle was written up in March in *The Daily Opinion*, student newspaper of the University of Washington. "For 31 years, Squires has devoted himself to remembering what others have forgotten," the article begins, "salvaging what many have abandoned, treasuring what some consider no longer profitable. Squires, 44, is a Linotypist."

The article discusses the processes and the Living Museum of Letterpress Printing which he runs with his partner, Kay Reinhardt. The author indicated great fascination with the Linotype machine, something she'd never before seen in action. The whole piece was well done. I met Jerónimo at the Buena Park



ATF Conference and frankly, one of my most lasting memories of him was his aggressive driving through the streets of Los Angeles on our whirlwind trip to Dawson's Book Shop. He's an LA native, so I guess he's permitted. Keep up the good work and keep that "beautiful" (a term used by the journalist) Linotype spitting out the lead.

### **Operative Letterpress Museum**

Lee Schrunk, curator of the Nineteenth Century Operative Letterpress Museum in Salem, Oregon, says hello and gives thanks for "the greatest newsletter (19) I have ever received." He enclosed an article about his museum published in *The Printer's Northwest Trader*, a publication he owned and published prior to his retirement. At present the plant contains extensive bindery and hand typesetting facilities, as well as a good variety of presses. But it has no typesetting or linecasting equipment as of yet.

### **Careful Who Gets Your Machinery!**

"Perhaps foolishly I gave away my three Intertypes to a local 'Machinery Restoration Society.' Soon after I learned they are more inclined to collect farm machinery. So with renewed interest I have since bought a clapped out old Ludlow Typograph which I hope to modify to cast individual letters. I am very envious of you Americans—how you seem to be smothered in casting machines and all their ancillary equipment." (*Ed's note: It may have been true at one time, but machinery is now quite difficult to locate.*)

—John Setek, Australia

### **Heard About the Linotype Stuck in a Tree?**

It's almost legend, the story about the late **Dr. James Eckman**, who woke up one morning to find that a crane had arrived to move his newly acquired Linotype into his basement via an outside well excavated for the purpose. It seems the men arrived earlier than expected and went ahead with the job. But somehow the crane got the Lino hopelessly entangled in the upper limbs of a nearby tree. Eventually they did get it in the basement, but not without several very anxious moments.

Well, a similar story is now being told by **Jim Walczak** who had sold his 3,000-pound Lion press and was moving it out. "As we were lowering the Lion's main frame a small tornado hit Balmoral Drive (seriously). As the sound of a 747 jet roared through our back yard, the lights went out at precisely 5:13 p.m. We retired to a safer part of the basement until the storm passed. Somehow we set the beast down

into a wooden cradle without mishap, and pipe-rolled it to the truck. Once loaded, the truck was advanced a few feet up my driveway to allow me to climb upon its hood to chainsaw a large locust tree that had them blocked in. My pickup truck camper unfortunately was under the tree and is now in the repair shop. But the new owners did depart with the monster press safely loaded." So goes the story Jim tells!

### **Bercuta Is a True Lino Expert**

"We were especially fascinated by John Kristensen's article on page 3 (*ATFNL 19*). It happens we are well acquainted with Bill Bercuta, since he is one of the few Linotype machinists available in this area and our old machines have frequent failures as we struggle to publish our Danish weekly. Many of the observations in the article coincide with our experience. In fact we have learned from him things about the machine that 50 years in the trade hadn't revealed."

—Jim Wagner, North Hollywood, Calif.

### **Strong Need for American Controller Rolls**

If you should ever hear of a cache of the American Monotype controller rolls being available, I'd really appreciate hearing about it to purchase the batch.

—Tom Tolnay, Route 1, Box 621, Delhi, NY 13753

### **A Very Unusual Typesetting Project**

"I've been interested in using my type-revolving Multigraphs in several of my publication-printing projects. In *railed* type for the Multigraph drums I have close to 200 fonts, and my hope is that someday I'll be able to set up some kind of tiny foundry for the casting of sorts and missing letters for my current fonts. Unfortunately, I know the casting of this kind of railed type presents some problems on top of those faced by the founders of regular letterpress type—but the design of the Multigraph certainly justifies whatever effort is necessary to secure type for the press. With this little machine weighing only about 150 pounds, it is possible to print an area of 8¼x13 inches, inked with three form rollers in a train of 12 with a full ink fountain. In other words the capability of the press rivals many larger conventional letterpress machines." (*Ed's note: OK, if you say so! And by the way, Fred also reports that he's conducted many experiments in an effort to find a way to chemically etch linoleum for the making of letterpress cuts. So far he's not had any success.*)

—Fred Woodworth, Tucson, Ariz.



## VISIT TWO AMERICAN TYPE FOUNDRIES IN ONE DAY? IN 1996?

How many chances do you get these days to visit *two* operating type foundries in a quick sprint across the northeastern United States?

I know practicing type founders need to be at their machines, and that social calls are often an inconvenience to them, so I cashed in some “past favors” in exchange for some time at Quaker City Type Foundry in Honey Brook, Pa., and the Dale Guild Typefoundry in Howell, N. J. I made my trip in early April, 1996.

Through our American Typecasting Fellowship, I have met and developed a warm relationship with Bill Riess. I was his customer way back in the early 1970’s when he was just getting his feet wet running the foundry on by himself after his father tossed him the reins. By the way, Bill’s grandfather started the business, but Bill’s certain there will be no fourth generation running the foundry. His son is into social work and other concerns.

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### *First stop: Quaker City Type Foundry. Bill Riess’ grandfather started the business in the 1920s.*

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Somehow he figured I’d be coming from the east, though West Virginia is definitely to his west. So his directions were a bit puzzling, but I found the big stone barn and 19th century home easily enough on the eastern edges of Honey Brook. For recreation, Bill and his wife Donna involve themselves in a long-running project of restoring the 19th century home they live in, and they’ve done a marvelous job on the several rooms already completed. It once served as an inn, and the charm is every bit as convincing as restorations at Colonial Williamsburg. There are comfortable, modern rooms too, but honestly, I spent very little time in the home. Bill was in the shop building,

adjacent to the home, when I arrived, and I left from the shop the next day!

You’d never peg the building as being a typefoundry. It looks every bit like a garage and what with the “cultural illiterati” (a term coined by Theo Rehak) roaming the countryside trying to rid the world of that all-so-natural element, lead, his precaution can’t be trivialized.

As I entered, he was in the midst of casting several fonts of 24-pt. Jefferson Gothic on an Orphan Annie (sorts caster). His rhythm in handling the new-cast type was almost symphonic. Font schemes were counted out as the type went into the big galleys. Breakdown of the fonts and wrapping would be done later on a specially made workbench Bill’s grandfather had rescued from the Keystone Type Foundry. Bill was trained to run four machines simultaneously and surely could do that today, though smaller orders and special schemes have diminished his ability to dance between the machines. Still all the facilities are on hand and ready to run.

I was instantly impressed by the neatness of the shop. I thought of the chaos in my own shop as I viewed his clean machines, uncluttered work surfaces, and well-swept floor. Bill has five composition casters set up for doing comp-size fonts (generally 12-point and smaller), and an amazing variety of Thompsons, Orphan Annies, and a Material Maker. With pride, Bill escorted me into his newly refurbished office complete with air-conditioning and new shelving for holding his inventory. Then he confessed he’d done the remodeling partly because the old shelves were leaning precariously and he feared he might end up under a collapse.

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### *He’s genuinely alarmed over the diminishing demand for type.*

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Like all prideful matrix owners, he was delighted to show me his many “gems,” only to whisk them back away into their proper cubbyholes before my hands got sticky. He was especially careful when the dingbats came out.

Bill Riess knows typefounding and knows the business well. After all, he’s been at it nearly

30 years. He is genuinely alarmed over the diminishing demand for type, and has, in turn, changed his mode of operation to secure as much of the market as possible. He's still very conscientious about keeping a good stock on his shelves so he can respond instantly to requests, but candidly admits the Jefferson Gothic he was then casting might remain on the shelves for several years to come. Where previously he concentrated on small, inexpensive fonts of a limited variety, he now is anxious to accommodate requests for unlisted fonts (if he has the matrices), and special font configurations.

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***Bill explained that only recently he'd completed an order for 350 lines of 6-point type. Anyone who has ever run a caster would cringe at such a prospect.***

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Realizing Bill works alone, you must appreciate how much of his time is consumed negotiating with potential buyers over such things as the identity of faces (they often don't have a clue), and over the trivial nature of some requests—such as for “a couple of letters only, and here's some old metal in exchange.” (The sender probably spent more money on shipping the metal than it was worth.) Bill anxiously notes that he welcomes knowledgeable inquiries—requests from folks who know and understand Monotype faces, and have some appreciation for the practical aspects of casting type. Special fonts, sorts by the line, or large-volume casting all are encouraged. A glutton for punishment, Bill explained that only recently he'd completed an order for 350 lines of 6-point type. Anyone who has ever run a caster would cringe at such a prospect.

His many years of experience also have embedded the idea that he never should compromise on quality. He showed me a huge stack of newly cast fonts in his barn which he'd acquired several years ago from a defunct foundry. “I bought the type for the metal alone,” he explained. “They weren't my font counts, weren't to my alignment and they weren't as well cast, so I will not sell them even at a

discounted price.” He makes a special effort to assure alignments from one casting to another, no matter how many years might pass between the two castings. “If they bought the font from Quaker City—no matter when—they expect the new casting to align with the old and I'll make sure it does.”

We stood in the foundry, studied the various machines, swapped lots of “war stories” and talked past midnight. Having a full day of traveling under my belt, I was zapped. Bill recognized this and reluctantly allowed me to hit the sack. His son, Chris, and Bill's wife, Donna, had already turned in, for both had early-morning obligations.

I awoke next morning at 8:30 to find the house empty. Donna and Chris already had gone off to their jobs and you guessed it—Bill already was out in the shop continuing his casting of the Jefferson Gothic.

One of the “legends” I had heard related to Bill's treasure trove in his barn. Pat Taylor had hinted that no one was allowed in the barn, so I became a nuisance until Bill remitted. It's a huge old stone barn built by original Amish settlers. Bill says he has a tax map done in 1810 which includes the barn, so it's definitely old. Unfortunately, he's got a pigeon problem and their droppings have done much to conceal the barn's contents. Even still, I spotted numerous Thompson casters, and piles of parts and components everywhere. Here and there: a pile of matrix boxes. Bill's strategy is to assure he'll be able to replace worn or broken parts until he's ready to retire. Seeing his barn's contents, I am certain he's well fortified. Unfortunately, he has little knowledge of precisely what matrices and spares he does have, and the investment in time necessary to check it all out simply would be prohibitive. Frankly, I wouldn't be willing to take on the task either.

I knew I was delaying his work so we agreed to breakfast a few miles away at a hilltop Dutch restaurant. After a meal and more conversation, Bill aimed me in the direction of the Pennsylvania Turnpike. I headed west toward New Jersey. Bill returned to his still-warm caster, to continue his work as the third-generation proprietor of Quaker City Type Foundry.



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***Next stop: the Dale Guild Typefoundry in Howell, New Jersey, the "successor to ATF"!***

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The trip on the Pennsylvania Turnpike was a bit crowded, but uneventful. Shortly after lunch, I found myself on Route 9 in Howell, N. J., teasing my memory as to the exact location of Theo Rehak's Dale Guild Typefoundry. I first met Theo briefly at the Sunday visit to Stan and Lucille Nelson's home during the Washington ATF Conference in 1984. We became far better acquainted during the months and weeks preceding the American Type Founders auction in 1993. Having been there twice during the chaos preceding the ATF auction, I was sure I could locate the foundry. I didn't. A call to Theo revealed I was north of Interstate 195 and I should have been south. With that hint, I quickly located the foundry and escorted myself inside.

As I entered, Theo was in the semi-darkness of his matrix-making area, searching for something. As he came forward to greet me, I was viewing with astonishment all the equipment he'd installed since I last visited. Where before he had some room to move around, now there were 16 different Barth casters installed in three separate rooms, affectionately labeled "Foundry A, B and C." (No doubt, this is an aspersion to the early days of ATF when their branches were called by letters.) He was in the process of doing a special 18-point casting and since I'd never before seen a Barth in action, I dropped my coat and immediately joined Theo in Foundry B. Before I knew what was going on, I'd been transformed into a lowly "rubber," hand finishing the letters as they came off the caster. Of course I fell behind, hopelessly.

Last time I'd seen much of this equipment, it was mournfully bowing to years of abuse and neglect on the floors at American Type Founders. No more. Theo has thoroughly cleaned, refitted and reconditioned each machine, including reworked motors, rebuilding worn cams, molds, and all else in need of attention, finishing up with new plumbing and electric wiring. He has done much of the installation work himself.

Once again, these are proud machines. Though all are over 100 years old, the casters seem well-poised and prepared for another century of work.

As Theo explains, the Barth casters were ridiculously over-engineered. Compared with components with similar functions on the Thompson caster, Barth parts would clock in with quadruple the weight and mass. Yet this mass conceals the fact that in the final analysis, the machines are quite simple both in theory and in practical operation.

For the remainder of that afternoon, Theo and I cast letters and continued the finishing of all by hand. He was obliged on this project to use matrices which weren't intended for the only 18-point machine in his possession, so lots of hand work (and thus, far greater expense to the customer) was required.

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***Throughout the afternoon, Theo promised that I'd really get to see how a true caster operator worked, for Edward Harwelik, a veteran of 42 years at ATF, was going to be working with us the next day.***

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Believe it or not, we had to break down operations about 4 p.m. because a tremendous snow storm was blanketing the area. In little over an hour, a foot of snow had fallen, and we were fearful we wouldn't be able to get to Theo's home if we didn't leave quickly. Considering the flatness of New Jersey and my intimate familiarity with snowstorms in the mountains of West Virginia, I wasn't too much worried other than for snarled traffic. That we had, but Theo knew the shortcuts so we got to dinner and then on to home with little difficulty.

Theo's wife Carole didn't fare as well in the storm, and didn't get home until after 11 p.m. Fortunately, it was a late spring storm and melting already had begun, so plans to work with Ed the next morning remained in place. Indeed, we were out early the next morning—on bare streets, no less—first to go to Elizabeth to get Ed, and then back to the shop at Howell. Theo and Ed were to bring on line a 14-point caster which Theo had just finished rebuilding—a

machine that had been cannibalized and left idle, taking up space on the floor at ATF for well over 20 years, according to Ed's memory. Theo's reconstruction included fabricating many missing parts, and rebuilding a mold which originally had been a "script" mold.

With pot up to temperature, the first very tentative casts were made with much apprehension about whether everything would work properly. Surprisingly, the first cast looked very good, so adjusting for alignment (positioning the letter's vertical axis on the body) and set (establishing the proper width and horizontal axis) ensued.

I reflect back, now, on statements about ATF precision in alignment, etc. ATF claimed there never would be variation in set and alignment and strongly implied there never *could* be. Theo and Ed didn't have original alignment characters—only worn samples. So they argued back and forth for well over 20 minutes about a quarter thousandth (and precisely where on the character the measurement should be taken). Finally, they agreed they'd met and conformed to the original ATF alignment and production ensued.

Watching the machine operate was very difficult for me. When something flies out of a Monotype or a Thompson, something is drastically wrong. A metal squirt and lots of agony are sure to follow. But on the Barth, compressed air is used to blow away the metal chips created by the trimming knives and that means metal chips are blowing out of the casting area all the time. Yes, Ed admits, he's gotten chips in his eyes before, but too infrequently to take too many precautions other than wearing glasses. I could not overcome my hard-learned habits with the Monotype and thus, never did get comfortable being close to the machine simply because chips blew out with each revolution. Throughout the day, however,

they never had a squirt caused by chips fouling matrix lock-up.

The type wasn't delivering in the second channel just exactly as it should. Theo and Ed fiddled and studied. Finally, a shim of one thickness of onionskin paper was inserted under a trimmer knife and the problem was fixed. Ed said the problem resulted from either not having



*Ed Harwelik, a veteran of over 40 years service at American Type Founders, still has the necessary "touch" to make a Barth caster hum like a well-oiled sewing machine.*

the original knives intended for use with that machine, or, maybe, wear on the machine itself.

Through mid-day Ed continued casting while Theo and I looked at matrices, at type inventories, and discussed the general landscape of typesetting today. He's initiated a variety of projects already, with varying results. His latest was an extensive casting of 14 point Caslon 471



Italic (from my matrices). He's stored the work on fonting galleys and intends to invest the time necessary to break into fonts only as orders are received.

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*Theo is anxious to work with individuals in meeting their requirements for "the best" metal type well into the 21st century.*

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But there is a strong need for an understanding of what's involved in casting on the Barth, and the time (and related expense) involved in getting things underway. Theo has a variety of casters for sizes up to 24 point. He also has a 72 pt. machine operational, but no other larger sizes. Thus, those sizes are possible only with the drudgery and intense labor of pivotal casting. Yes, he has many, many molds and a pivotal machine for this purpose, but you're now speaking of 19th-century technology and frankly,

Theo does not enjoy working with the pivotal caster. It's hard, physical labor and not completely without risk of serious burns.

About the time I was getting ready to depart for my return trip to West Virginia, Ed shouted to Theo that he had a problem. The pot was draining behind the mold because the choker valve had jammed in the open position. I didn't know Theo could move so quickly. A few whacks with a hammer in the critical places freed the choker and stopped the flow of metal, but several pounds of molten metal had flowed into the inner workings of the machine anyway. "What can we expect? The pot (which always encases the choker valve in lead) hadn't been turned on for 20 years before today," Theo reflected. They started the cleanup and decided it was time to quit casting for the day. I figured I already had plenty of experience cleaning up lead spills, so I made the excuse that it was time for me to leave for West Virginia.

## *So How Valid Is the Claim About Superior Barth-Cast Type?*

Operation of the Barth caster had been largely a mystery to the "outside world" until the demise of American Type Founders. This was true primarily because the foundry was obsessed with keeping these things secret (for whatever misguided reason). After watching Theo and Ed operate for two days, these are my admittedly layman's observations, which attempt to compare Barth operation to Monotype and Thompson machines.

To briefly review, the Barth caster was invented by Henry Barth, who came to American Type Founders from the Cincinnati Type Foundry after the notorious merger in 1892. He'd done much of his work prior to coming to ATF, but continued to improve the machine until he died in 1905. Final development and improvement came at the hands of Linn Boyd Benton, with few significant improvements being introduced after 1920. For a more info, see Theo Rehak's book, *Practical*

*Typecasting* (Oak Knoll Books, New Castle, Del., published in 1993).

I have no doubt that Henry Barth's most significant decision was to deliver the letter into the first channel after casting *on its side* rather than with the nick up, as on the Thompson. This enables the machine to trim each letter on the right and left (the two sides where kerns most often occur) *before* the letter changes direction 90 degrees and passes down into a channel where a second set of knives trims the top and bottom. Also during this phase of operation, a groove is cut into the bottom of each letter, making the two feet.

Having run Monotype equipment for over 20 years, I was especially curious about all the so-called "built-in" features of the Barth and foundry matrices which allowed ATF to boast of its absolutely unblemished record for precision and accuracy over its entire 101-year history. Sorry, folks. It's not "built in." Rather, it's

testament to alignment standards retained from the very first castings, and dogged adherence to those standards during every subsequent casting.

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***There's nothing at all "automatic" about consistent alignment and precise set widths of type cast on Barth machines. It's all attributable to operator accuracy and repeated close inspection.***

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That's why ATF still had on hand alignment standards (first-cast type) from BB&S and other foundries. When new letters were cast, ATF always went back to original standards for comparison. In fact, an inspector had to sign off on new alignment settings before the caster operator could begin production. Records of this inspection were kept and double checked by a third person after the run was finished. If the cast type was found to vary, then the caster operator was obligated to re-do the work on his own time. This *triple-checking* assured continuity on all ATF types leaving the foundry—not any built-in feature of the ATF matrix. In later years, Theo reports, the procedure became a means of harassment and arbitrary punishment to operators somehow in disfavor with an inspector. The inspector had absolute authority and, on occasion, operators were forced to re-cast work even though their first run was not in error.

Setup for casting each letter involves changing the machine's set width (turning a huge wheel which is calibrated in sixteenths of a point), and in setting up all the special knives for trimming all four sides of each letter. Theo has literally hundreds of knives (little multi-toothed bars an inch or less in length), and installing them requires special knowledge of the character being cast—whether it kerns and how much it kerns determines what knives are to be used. The knives differ primarily in the angle of their blades. Crucial to Barth operation is a lightweight brass ball-peen hammer, used to gently tap the knives as the machines casts characters. An experienced operator can properly set the knives as the machine runs. ATF type always was trimmed

to keep the kern of one letter from resting on the shoulder of adjacent letters. This never was done with types cast on Monotype or Thompson equipment. ATF's theory (and probably a good one) was that this trimming reduced the chance of kerns breaking off because of interaction between the adjacent letters in a form. Theo surely could get away with *not* trimming his types, but he is devoted to the ATF tradition and thus, insists on continuing the practice.

The "underpinning" of kerns, by the way, is a partial explanation for deeper drives on italic letters and scripts. ATF made deeper drives (which necessitated additional casters with special molds) so the tapered trim under the kern would not be too abrupt and thus, less resilient. Therefore, as each new letter is cast, if the kern is wider (or narrower), it will require changing the trimming knives to match the required taper. Theo maintains a stock of literally hundreds of different knives for this purpose.

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***Deeper matrix drives make it possible to strengthen kerning characters, especially on the italics.***

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These knives are the principal difference between Monotype and foundry casting. First, they enable the casting from engraved matrices because they can trim off of the tapered sides ("beards") after each cast (the trimming is necessary to have close-fitting letters). Secondly, they enable diagonal trimming away of the underside of kerns, reducing the chance that the letter placed next to the kerned character might break the kern. Simply put, there's no trimming done in Monotype casting whatever.

It is true that vertical and horizontal alignment built into ATF matrices is very precise. Still, alignment must be checked by the machine operator with each new letter, and letters certainly can be cast to the wrong alignment. When the matrix is inserted into the machine, it's inserted with a shim which goes between the head of the matrix and the bearing surface of the mold. The shim serves two purposes: (a) It establishes and holds the vertical alignment of the character, and (b) it prevents wear on the matrix during its



back-and-forth motion in the caster. Again, Theo has large numbers of these special shims, varying in thickness by small fractions of a thousandth of an inch. Vertical alignment is adjusted in the Barth caster only by changing to a shim of different thickness.

***Barth casters might be called "automatic," but there's still a lot of hand finishing necessary.***

My last comment regards the mistaken notion that all ATF type comes off the Barth caster fully finished. This is true only for letters that will "nest" in the delivery channel. By that I mean that if a kerning character has a bare shoulder opposite its kern which is wide enough to accommodate the kern, then it can be cast and trimmed automatically. But if it won't nest, then the letter must be delivered away from the delivery channel. Knives are used to trim the letters as much as possible, but these partially finished letters are detoured into a tray for hand finishing. Each letter will be trimmed (or "dressed") by hand, one at a time. ATF had a whole bank of machines for doing this trimming—a letter at a time by a human operator—but Theo did not choose to acquire any of them and thus, he must dress all non-nesting types by hand.

Yes, the Barth delivers a tremendous pressure to the molten metal at the time of casting and thus, casts an especially solid piece of type with a beautiful face. But this can be mimicked with properly adjusted Monotype equipment. Not as well, according to Theo, because the Barth exerts at least three times the pressure on the metal as it's forced into the mold. Also, because the nozzle opens into the mold orifice via a less-obstructed path, the molten metal first impacts the matrix and later fills the entire body, making for what Theo calls a "case-hardened" casting. He's right, though I could argue whether hardness is *that* important. I will concede, however, that the refinement of four-sided trimming alone would make Barth-cast types superior to those done on Monotypes.

Monotype never made an effort to add this refinement to its machines. However, a Japanese version of the Thompson caster did add a second step to type delivery so that trimming could be done. One such machine can be found at LA Type, originally the property of Charles Broad, who imported it. That machine still is used today on fonts which require the trimming of beards. LA type has several replacement matrices which have been engraved. Thus, they have overhanging beards which are automatically trimmed away on their one, special Japanese "Thompson" caster.

***Talking About an Unholy Mess!***

These photos, provided by Lewis Mitchell, show the disastrous results of a trailer's cross-country trip. The trailer carried all matrices, punches, and matrix-making equipment from Hartzell Machine Works in Pennsylvania to Mackenzie-Harris in San Francisco in 1984. The photos will be part

of a presentation on the history of both the American and English Monotype Companies by Paul Duensing at the Charlotte Conference. Lew reports it took a worker three months to straighten out the punches alone. Who knows whether all the pied mats were reclaimed or junked?



*Each punch is about 1 inch long and ¼ inch square.*





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