Newsletter

American Typecasting Fellowship

42

In This Issue

This *American Typecasting Fellowship Newsletter* has been published *occasionally* since 1978 for the American Typecasting Fellowship, an informal group of hot metal typecasting and linecasting enthusiasts, by Richard L. Hopkins, 169 Oak Grove Road, Terra Alta, West Virginia 26764. You may be added to the mailing list by sending $20.00 U. S. to the editor. Overseas recipients please send $40.00 U. S. currency. Cost per issue is stated at $10.00 for mailing in the U. S. and Canada, $20.00 elsewhere. (Costs subject to increases in postal rates.)

This page has been Monotype composed and letterpress printed direct from the type

ATF Newsletter
Number 42 January 2018

San Francisco Conference Aug. 24-26, 2018

Brian Ferret at M&H Type in San Francisco reports that the dates for our 40th Anniversary Conference are tentatively set for August 24-26, 2018, at M&H's wonderful plant, located at El Presidio in San Francisco.

To minimize "running around," nearly all functions of the Confderence will be held at M&H's marvelous facility, including all lectures, plant tours, the open house, the swap meet and the auction.

Brian reports that negotiations still are underway and that at present, a host hotel has not been selected.

M&H (Mackenzie & Harris) is the oldest and largest letterpress type foundry in the U.S., dating from the 1915 Panama Pacific International Exposition. Designated an "irreplaceable cultural treasure" by the National Trust for Historic Preservation, Mackenzie & Harris was established with demonstration Monotype machines from the Panama Pacific International Exposition's Palace of Machinery. These have been preserved as part of the historic foundry, still in operation on a full-time basis, where handset and composition "hot metal" type is manufactured for the Arion Press and other letterpress customers.

M&H Type is associated with Arion Press, fine printers and publishers of deluxe limited-edition books, and the Grabhorn Institute, which sponsors tours and educational and apprenticeship opportunities. All share the premises of a handsome 1928 industrial building in the Presidio National Park of San Francisco. The facility, though centrally located in the city, retains a more relaxed atmosphere and includes adquate and easily accessed parking facilities.

Brian reports "we are currently talking to the Letterform Archive, San Francisco Public Library Grabhorn Collection and others for Friday field trips, much like at the Wells College ATF meeting. People seemed to like the option of bouncing around and seeing different things at their own pace on the first day."

Plans for the meeting seem to be following the form of previous ATF Conferences, with a free day on Friday, August 24 (with several recommended sites to visit), followed by an open house that evening. Saturday will be a day stuffed full of lectures or demonstrations in the morning, followed by a swap meet and auction in the afternoon, capped off by a gala banquet that evening.

Sundays generally feature a return to an open house, perhaps a very brief "official meeting" to select the site for the 2020 Conference, and customary farewells and departures.

Brian indicates that technical sessions definitely will be arranged to coincide with the Conference, with demonstrations and sessions utilizing Monotype Comp Casters, the Supercaster, the Keyboard, the Welliver Interface, the Giant Caster, and perhaps other implements found in the M&H plant. There are tentative plans for technical sessions, but it is not yet established whether these sessions will preceed or follow the Conference itself.

If you are willing to make a presentation, want to offer your services at the technical sessions, or have other special interests or concerns, please contact Brian at <mandhtype@arionpress.com>.

Our first meeting (before ATF was named or "organized") was at Terra Alta, West Virginia, July 17-19, 1978.

2016 ATF Conference Report Supplanted by Death of Lynda Hopkins

Copy, typecasting, and makeup for this edition of the *ATF Newsletter*, were gathered over several months prior to November, 2017. This space was designated for a review of the wonderful Conference we had in the Finger Lakes region of New York the summer of 2016. Richard Kegler was coordinator, with Mike and Winnie Bixler providing lots of help and wonderful visits to their foundry and printing shop.

But circumstances have caused me to short-circuit that report. For conference info, I refer you to the extensive website coverage of the meeting provided by David MacMillan, who (among other things) attended the meeting. He has done a marvelous job of detailing the activities associated with that meeting. His report will give you a great participant's perspective. You may gain access by logging onto his site, <https://www.circuitousroot.com/artifice/letters/press/typemaking/atf/conferences/atf-2016/index.html>.

Two tumultuous events have severely affected your editor's abilities toward getting this *Newsletter* to you. First was my closing of my commercial printing firm, the Pioneer Press of West Virginia, Inc., after 44 years producing a great variety of books, pamphlets, and general commercial printing throughout my geographic region and beyond. This was a heart-wrenching decision on our part, but one which needed to be made, for the business was failing and lacked energetic leadership from me. Of course, caught up in this turmoil was my wife of 56 years, Lynda, who all along was right at my side helping and advising in every way possible.

Lynda was such a wonderful customer service rep. She knew the business well and was very effective in helping customers get what they needed, always on time, on budget, and exceeding expectations with regard to quality and professionalism. In addition to that, she supervised all activities related to bookkeeping and office management.

The help she provided also stretched to the *ATF Newsletter,* for though I did the "grunt" work of writing, casting the type, doing the presswork, it was Lynda who proofread each issue, double checking the facts wherever necessary. She often helped out in the bindery and mailing too.

Closing down the Pioneer Press plant bore very heavily on me, for I founded the business back in 1973 and spearheaded its development through the years. But now I realize that Lynda was even more adversely affected by the decision and its aftermath. After a few hours taking care of bills, final deposits, and general paperwork, Lynda left the shop with me on November 10th. She passed away early the next morning as I slept, unaware of what was happening.

We will never know precisely what took Lynda, but she is sorely missed. Over the past 56 years she has been my greatest supporter, my best friend, my closest and dearest associate, along with being mother of our two wonderful children, and a very proud grandmother too.

My activities as a hobby printer and as an obsessed collector of typecasting equipment, my private press productions, and my nearly 40 years of providing the *ATF Newsletter* to you could not have happened had it not been for the help and encouragement Lynda always gave me. She went to our meetings and shared many of my printing friends, and in every way was the perfect help-mate. She did the lion's share of family bookkeeping and general management "of the estate"—stuff I largely neglected because she never complained or discouraged my eccentricities. Now I am learning just how much of the "load" Lynda carried. The need for me to give these matters more attention will, I fear, cut deeply into time available for my future letterpress activity.

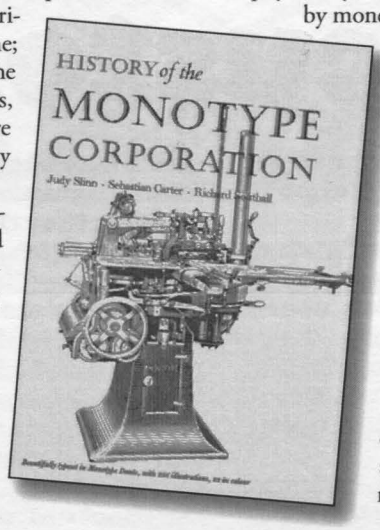
I am not calling it "quits" by any means, but I certainly have a need to step back and assure myself that my future endeavors will be worthy of the effort. Hopefully what I continue to do will be a worthy tribute to a great lady whom I was lucky enough to call "my wife" all these years. Goodbye Lynda. I love you still!

An Exhaustive Study of British Monotype

I found myself pondering how to approach this review of the long-awaited book, *History of the Monotype Corporation,* while I was standing at my workbench cleaning and reassembling the cross-block of a Supercaster Mold. Persons I correspond with, who knew of my book, *Tolbert Lanston and the Monotype,* had asked what I had to say about this British story, more recently published.

Book Review

My background explains the difference between my approach to the American company, and this exhaustive study of the British company by three separate authors and two editors. My fascination with Monotype began in high school when I discovered a Sorts Caster buried beneath a pile of rubble in the back of my high school printing classroom. I could find precious little about where the machine came from and precisely what it did (this was in the mid 1950s) and curiosity lead me on an informal lifetime pursuit of answers to questions *no one else seemed to be asking.* The American company was in steep decline; Monotype users were irate about the company's neglect of their needs, and no one seemed to know or care about the Philadelphia company which made the machine.



In comparison, the English company was still functioning well and was keenly oriented toward recording, publishing, and preserving its own history. The British book, then, is the tapping of what apparently is a massive archive of British Monotype history. My book is the result of hunting and digging for details with no archive available. I found only brief, scattered articles about the American company and its history. Had it not been for the advent of modern-day research via the Internet, my book never would have materialized. Conversely, the British effort is an excellent effort sorting out and writing, with details chosen from what appears to be a massive archive of photos, documents, records, etc., pertaining to the British Monotype organization.

My research started with becoming acquainted with last-remaining "people in the trenches," people who were proud Monotype users who either had made their daily living running the machines and/or working on them. But these persons had precious little to provide in the way of info about the Lanston Monotype Machine Company, and much of what they knew proved to be incorrect. I had no personal contact with American Monotype. So perhaps it could be said that my piece came "from the trenches," while the newest book has come from studied academics and typographers having immensely more than a passing acquaintance with the company they were writing about. It's an exhaustive study and a wonderful send-off to a firm that lasted nearly 100 years, and was a key and highly influential player in the printing industry throughout most of the world. It is packed with facts and figures, accentuated by an abundances of photographs of the company's manufacturing facilities, the legion of workers who at Monotype's height, encompassed over a thousand individuals.

It's a story about how a company was built and nurtured by a band of dedicated and committed key players who turned a plausible (yet not quite "perfected") machine into a finely tuned instrument which successfully automated typesetting and fostered major and still-significant design leadership in the world of typography. Sadly, it also is a story about how manipulation by money leeches gained control of the company and, though delayed for nearly twenty years by injection of capital and effort by the government and other parties, eventually lead to its total demise. Coincidentally, this was the same fate suffered by the American firm nearly thirty years earlier.

No one on the typographical scene anticipated the revolutionary developments which came largely from outside the printing industry, yet those developments massively affected every aspect of the trade, reducing what once was a huge industry within itself to a now-commonplace assortment of computer software which pays no homage to the mass of human effort which preceded it.

This review provides scant reference to the immense amount of details, facts and figures, relevant to the rise and fall of the Monotype Corporation. There are far too many to recount here and thus, my only suggestion is that if you are curious at all, you absolutely must have this book. It is a splendid final tribute to the Monotype Corporation and the essential role it played for nearly a century. The book is a massive case-study of the development, growth, maturity, continued effort to remain relevant, and the eventual demise of this industrial giant in the printing industry.

References: *History of the Monotype Corporation*, by Judy Slinn, Sebastian Carter, and Richard Southall, Edited by Andrew Boag and Christopher Burke. Published in 2014 by the Printing Historical Society and Vanbrugh Press, London. 432 pages.

Tolbert Lanston and the Monotype. The Origin of Digital Typesetting, by Richard L. Hopkins. Published in 2012 by The University of Tampa Press, Tampa, Florida. 214 pages.

Cooper Black

For far-sighted printers with near-sighted customers

The big type is a quote from Oz Cooper himself. The typeface is freshly cast Cooper Black via Giant Caster mats. It is exciting to hear of newcomers to our type fellowship, specially when they are pursuing very unusual projects such as casting large sizes from Giant Caster matrices.

That's the case with Jessie Reich of Auburn, New York, who has been studying with Michael Bixler, nearby at Skaneateles. She has become deeply committed to pursuing the craft. Big sizes are her latest fascination. Here's what she has to say about this Cooper Black casting:

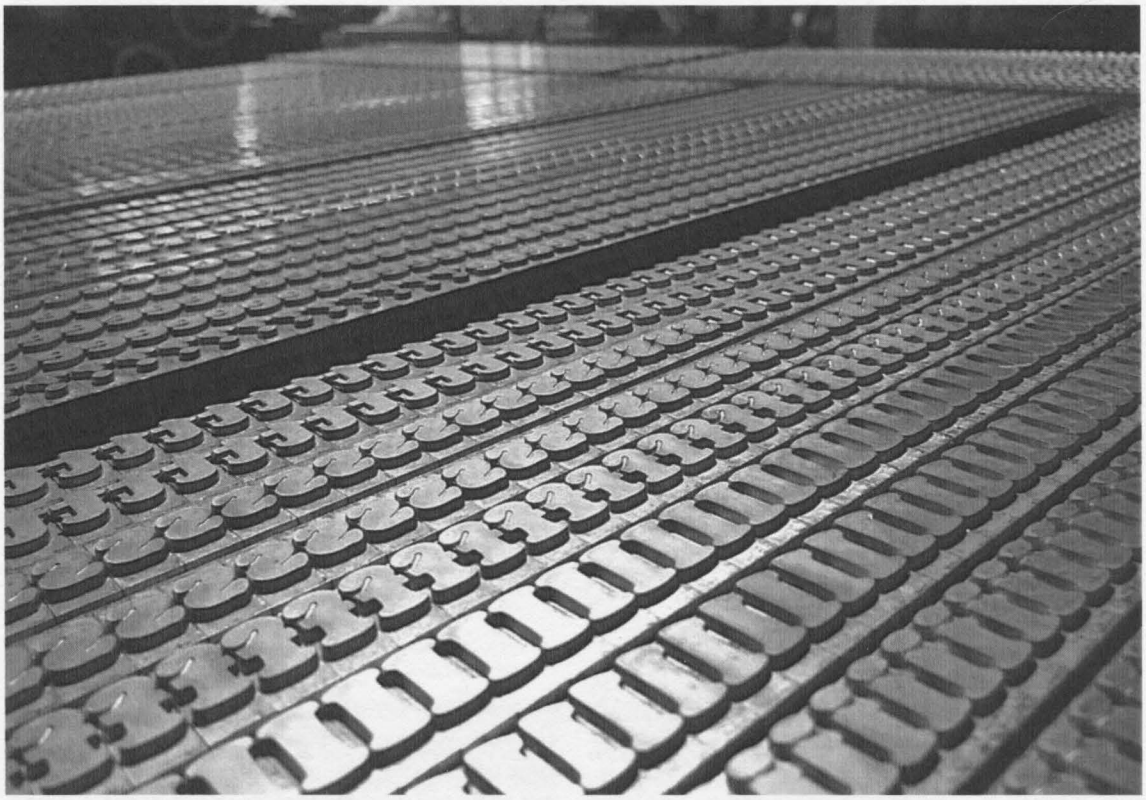
"In March 2017, I spent a full week casting limited fonts of 48-pt. Cooper Black—approximately 180 pounds of type—using Michael Bixler's English Supercaster with antique American Giant caster matrices from Rich Hopkins' collection. I used a special Giant caster matrix adapter for the Suercaster. Rich says this adapter is 'scarce as hen's teeth.' I have used it to cast other American Monotype faces, such as Rockwell, Franklin Gothic, Stymie Light and Extra Bold, and Bodoni [all in 48 point].

"Many of these Cooper Black Giant mats had to be modified by filing the grooves on both sides wider in order to fit into the mat holder. I also found that alignment varies from mat to mat, rather than being consistent, as with English display mats.

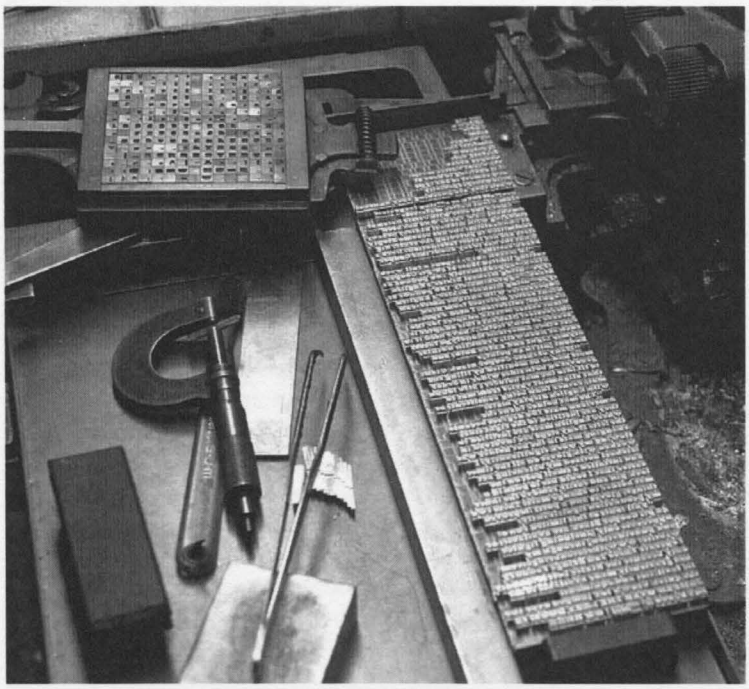
"The mat holder turns the American mats 180 degrees because they are justified to the right side, where English mats are justified to the left. Many steps are involved in changing mats in the hot holder was slowing my work significantly. I worked with gloves on all the time. Michael noticed my balancing act and installed a small post on the caster that I could use to push in a lock pin and easily remove the inner mat holder to change mats. These two things, gloves and a post, improved my production significantly.

"Full fonts of this limited run of 48 pt. Cooper Black are available, or uppercase only [including figures and punctuation] through my website: www.threetonbridge.com I operate Three Ton Bridge Foundry only because the Bixler Letterfoundry has graciously made available to me its facilities and equiment."

This page has been Monotype composed and letterpress printed direct from the type.



Behind the Cooper Black Page



Frankly, I never have seen this much type laid out on a table or makeup stone. When Jessie approached me about borrowing my Cooper Black mats I readily agreed but I never dreamed she had the drive necessary to crank out this much type. I was amazed when I first saw this photo.

In return for lending her the mats, I asked for a small font. When that font arrived, I again was absolutely impressed. The type was beautiful. It provides clear evidence that Jessie has worked under the watchful eye of a master typefounder—Michael Bixler.

I wanted to show a specimen in this *Newsletter* so I looked up a quote from Oz Cooper, the designer, in his *The Book of Oz*. Cooper Black was perhaps one of his most popular designs but he didn't

particulary like it! What text face would work best with Cooper Black? Why not Cooper Black itself—in a smaller size?

I recalled that I had a font of 10 pt. Cooper Black composition mats. These were made by Lanston Monotype to be used *only for casting sorts*. No matrix case arrangement was offered, but I recalled that Mark Sarigianis of Oakland, California, had done the whole *Declaration of Independence* in 10 pt. Cooper Black. (Look up <theprototypepress.com>)

Mark had worked up a matcase arrangement for use with the Welliver Interface, so I emailed him and he sent to me his MCA, saying there were problems and it needed more work. I took his challenge and experimented with my Cooper Black matrices much in the fashion as explained on pages 22-23 when I was working with my 20th Century Semi-Medium matrices. Finally I arrived at what I considered a tolerable stab at automating the casting of this font.

I assume that these Lanston mats were not driven with the same precision as regular composition mats, perhaps because they were intended to be cast only as sorts, where the operator could justify them as *each letter* was cast. Thus, I have the same complaint as Jessie regarding mat alignment. Some letters are high, others are off-center. No "justifying" of individual letters is possible with composition, so blame alignment or set width problems on Lanston, not me.

I had asked Jessie for a brief report on her work so when her copy arrived, I put it through the computer. The page you see is the result. (Of course there was some editing and fiddling to make everything fit, but that all was taken care of before any casting was done.) The caster performed perfectly, generating this galley without a single stop (see photo on previous page).

Jessie Reich demonstrated the Supercaster at the 2016 ATF Conference and a visit to the Bixler Letterfoundry.

Musings from John Kristensen On Casters & Projects

The following email message was received from John Kristensen, Firefly Press, Somerville, Mass. Some text likely now is dated, but it does show much activity & plans in the composing room!

Yes, the Monotype composition casting has had fewer glitches as I have gone along, though I have yet to cast an entire galley without something untoward happening.

My machine sat unused for a long time before I hooked it up again, and some of the problems were, I think, just stiffness from lack of use. I see, however, why Michael Bixler says that American casters are easier to run; the English machine doesn't let you get away with anything.

I have long thought of doing a little book, a reprint of *A Yankey in London,* a satire printed in 1804 and written by Royall Tyler who was, among other things, the first Chief Justice of the Vermont Supreme Court. It would run to about eighty pages of 14 point Bell (I have the mats) and I think that now I could manage it if I find the time (I have no idea who would be interested in the book after it's printed).

My Thompson caster is also settling down, producing fewer blow-ups and better type. My friend Michael Babcock of Interrobang Letterpress here in Boston is seriously considering an offer of a gas-fired American Thompson as he watches, still from a respectful distance, my machine at work.

Moving on to linecasters: We have together bought from Don Black a run of German Linotype ALDUS matrices (the book weight version of PALATINO, as I'm sure you know). There can't be more than a couple of other printers on this side of the Atlantic who have it.

A Gala Celebration of a New Letterpress Film: "Pressing On"

It had all the trappings of a Hollywood event, even if it did occur in Nashville. That's when the full-length documentary film was premiered to an audience of nearly six hundred people at the Country Music Hall of Fame Theater May 27, 2017, hosted by Hatch Show Print.

The film is the brain-child of Erin Beckloff, a letterpress printer, filmmaker, and graphic design educator. She is an assistant professor of graphic design at Miami University in Oxford, Ohio. She believes the letterpress printing process will survive through educating others in the craft. She studied letterpress through practical application and the shared knowledge of master printers, including the talented folks at Hatch Show Print.

Hatch Show Print is a working letterpress print shop founded in 1879. It includes a marvelous collection of wood type, metal type, and associated press equipment preserved to educate diverse audiences and to create iconic designs that represent and commemorate America's cultural identity. Hatch Show Print maintains its focus on preservation through a robust program of actual print production.

Erin developed her concept and was greatly assisted in the production by Andrew P. Quinn, co-director, and co-owner of Bayonet Media, located in Indianapolis, Indiana—the firm which produced the film. It is the end result of a plan which evolved from an on-line fundraiser by Kickstarter. Over $70,000 was raised in this effort, which enabled film crews to visit Paul Aken (the Platen Press Museum), Celene Aubry and Jim Sherraden (Hatch Show Print), Paul Brown (Indiana University School of Art + Design), the late Dave Churchman and his son, Andrew (Boutique de Junque), Jim Daggs (Ackley Publishing Co.), Jennifer Farrell (Starshaped Press), Rick von Holdt (Foolproof Press), Rich Hopkins (Hill & Dale Private Press & Typefoundry), Scott Moore (Moore Wood Type), Dave Peat (Peat's Press), Tammy and Adam Winn (the Red Door Press), and Gregory J. Walters (Piqua, Ohio). Nearly all these individuals are associates of our American Typecasting Fellowship.

Over ninety hours of filming had to be reduced to ninety *minutes* in preparing the final film. Erin explains her greatest regret is that time and financial restraints prevented the film crews from visiting several other notable letterpress studios across the country. Still, the essence of the film—why letterpress remains vibrant today and under what conditions—shines through brightly and in both an artistic and entertaining way.

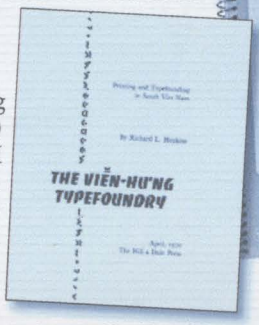
The film continues to be previewed at several locations throughout the world. Once previewing is complete, the film may be made available for sale to individuals. For details and a timeline, check this website: <letterpressfilm.com>.

Interest in Hot Metal Typecasting Is Stirring Overseas Too

The Internet is shrinking planet Earth immensely, and it's breaking down the barriers of time, space, and language to the point where a shared common interest prevails to spite of these obstacles. Typecasting is no exception and during recent months, I have been approached by individuals from Vietnam, from Portugal, and from India, who have been seeking more information about typefounding in their own countries.

Vietnamese Graphic Designer

First was Dam Ca, a young graphic designer (born in 1980) who lives in Hanoi, Vietnam. "I studied type design in France in 2009–2012, and now I am conducting a research project titled "The History of Vietnamese Typography." He happened upon me after finding reference to a little booklet I published in 1970 titled, *Printing and Typefounding in South Viet Nam: The Vien-Hu'ng Typefoundry.* His explanation was that "This book is, in my opinion, the only one in English which talks about printing and typography in South Vietnam in the period." (You may find a further reference to this work in this issue of the *Newsletter,* on page 14.)



Title page of booklet I did in 1970. Somehow Dam Ca found me on the Internet.

Dam Ca and I have corresponded a several times since then and his discovery of typefounding in his native country has increased. "I have now three specimens from three different typefoundries in Saigon and five from typefoundries (perhaps branches) in Hanoi." In regard to the Vietnamese typography, one of the sad truths is that all has come from abroad: equipment, technical knowledge, and style—even how diacritics appear and how they are positioned. "I have found no trace of any typographic work by a Vietnamese designer. I hope I am wrong," he muses. "As you know, the Vietnam landscape is now changing so quickly and so brutally. Very few things (relating to metal typography) are left."

Cover of Vietnamese specimen book.

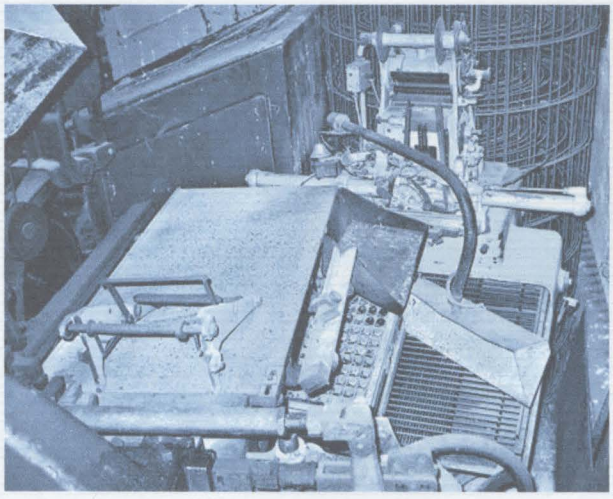
Seeking Equipment in Portugal

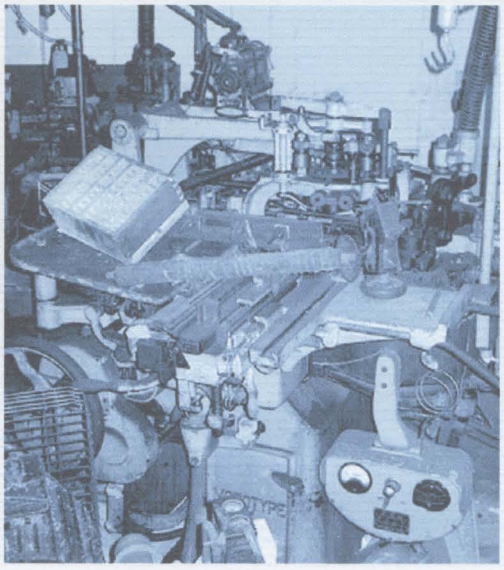
In November I received this brief email message: "I'm from Portugal and I have a great interest in typecasting. I heard about ATF and I'd like very much to join it, if it is possible."

The message was from Manuel Diogo of Lisbola, Portugal. Of course I responded with curiosity and learned that Manuel also was interested in finding typecasting equipment which he might acquire. In faraway USA, I could not offer much help but did give him advice on what to look for.

Perhaps receipt of his first *Newsletter* encouraged him to search and soon thereafter, an excited message, along with many photos, reported that he

These two photos give frightening evidence that no care was given to the storage of these Monotype machines, found in Portugal. At left is a Monotype Keyboard with only one keybar in place amidst much clutter and dirt. It is overlapped by portions of a Supercaster. The Comp Caster at right is in equally deplorable condtion.





had located what I identified as a Supercaster, Monotype Keyboard, and a Composition Caster.

Two of his photos (shown on the previous page) reveal the deplorable condition of the machinery. My response to him was cautious, noting that because of its magnificent resilience, the equipment possibly could be resurrected, but that without matrices, molds, etc., it would be useless to make the effort.

I also commented: "You had not mentioned what cost you might have to pay. Frankly, you are doing the owner a favor by taking them. I would offer little if any money for them because only a crazy person (like yourself) would want to restore these machines."

Soon thereafter, I got this message: "Only this last weekend I returned to the place where the Monotypes are. Unfortunately, the molds and matrices have long gone. It is very sad to leave the machines there to their certain fate but there is no other choice. Well, I will keep looking for others." The machines were offered free to him, but he was wise in deciding not to claim them.

I also put Manuel in contact with Nils Young in Ohio, a fellow "typenut." I knew Nils had contacts in Portugal and subsequently, he was able to visit with Manuel in Portugal, and pass along encouragement.

With optimism, I look forward to his having greater success in the future so that, perhaps, there will evolve a new private typecaster in our realm—from Portugal.

Journalist in India

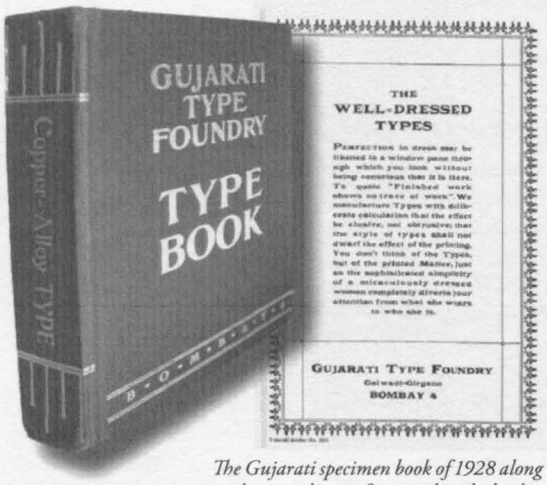
Early in 2016 I heard from Pradeep Sebastian of Bangalore, India, who introduced himself as a bibliojournalist writing mainly on the book arts for an Indian newspaper called *The Hindui*. He explained that "I have been profiling collectors, fine press printers, book artists, antiquarian bookdealers, and now my interest has moved to typography.

"In India unfortunately for fine press/hot metal enthusiasts like me there has never been a tradition of private press or hobbyist printers, let alone typefounders, and so one never ever comes across anything printed in India from hot metal type. Perhaps a long time ago when there were commercial letterpress printing houses —but there is no history or record of them, not even scant ones.

"In my hometown, the city of Bangalore—in the South of India, I would (when I was in college in the 80s) pass by a large, sprawling building with a signboard that said 'MONOTYPE'. I was quite curious about what could be inside a building with a name like that, To my shame, I never did step in and now, of course, it is no more—just when I am becoming interested in the history and work of hot metal type and hot metal founders and printers! Since we followed everything British, I am guessing it was Monotype that dominated over Linotype. But as I said, there is little known about letterpress printing as it once existed in India."

His searching of the Internet brought him to references to the *ATF Newsletter* and a discussion of the Gujarati Type Foundry (Issue 8, January 1983). That was his principal reason for searching for me. In 1984, subsequent to publishing that *Newesletter* article, I was able to import several copies of the foundry's specimen book from Gopalkrishna Modi, proprietor of the foundry. I distributed the books to ATF members who had subscribed to my offering. I had one copy left over and I offered that copy to him. Receipt of the book by him was a stunning event. He reported his delight in a column titled "The Typophile's Notebook" in *The Hindui* newspaper, published in India March 7, 2017.

"For me, it was eye-popping news that there had ever been a type foundry of such stature and accomplishment in India, and that it had produced a specimen book of hot metal fonts to rival any in the world." His



The Gujarati specimen book of 1928 along with a sample page from within the book.

Hindui report was extensive and accompanied by color reproductions of pages from the specimen book.

During our email exchanges, he asked, "Were there other typefounders in India?" I put him in contact with Greg Walters, whom I knew had worked with at least one other Indian typefounder, and also with a company in India which made matrices. Subsequent to working with Greg and doing additional research in India, he discovered that up until the late 80s, there were at least 40 type foundries in India. And yet we know so little about India's letterpress past, its printing shops, its printers, and type casters.

"Their history is yet to be written," he concludes. "If anyone reading this can shed more light on GTF or on any aspect of our letterpress history, I am anxious to hear from you." Contact <pradeepsebastian@hotmail.com>.

Typographic Evolution

Considering the Great Human Effort Involved

Have you ever stopped to think about the human effort involved in assembling the many type specimens you have studied over the years? Have you pondered the skill involved, the time involved, and the special effort expended in preparing what deceptively appears as a simple image on a page?

As a person who started with hand-set type and has gone through the entire evolutionary process to vectored digital images stored on a thumb drive, I find myself thinking about the people who expended such great effort to make Monotypes, Linotypes, Varitypers, filmsetters, etc., function and produce the typesetting that was needed.

So it was when Karl Rathgeb e-mailed a copy of an old ad which was published by the Westcott & Thomson type house in Philadelphia, I had questions to ask. The Westcott firm, by the way, was a long-established hot-metal typographer whose liquidation got Pat Taylor and the group of Monotype enthusiasts in the New York City area started into private typecasting. But that's another story.

The list of typefaces offered by Westcott as being available on Intertype Fotosetter and Fototronic machines (see next page) baffled me. I knew that type fonts were proprietary to their respective machine manufacturers, yet included in the list were designs unique to English Monotype, to Linotype, and perhaps others. Yet all were listed as available on Intertype phototypesetting equipment.

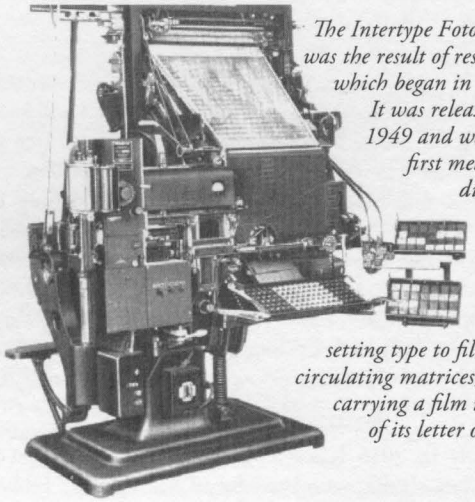
Westccott had a devoted following of clients who were accustomed to hot-metal type offered by Monotype and Linotype and the firm simply had to find a way to continue those faces with whatever phototype equipment they chose to use.

It turns out that Karl Rathgeb was the one who found the way. He developed processes and techniques necessary to make fonts for these various systems. His personal story began in type foundries in Germany and Switzerland. That segment of his career was reported in ATF Newsletter 33 (October 2009, pp. 13-18). What follows is Karl's own account of how he came to become a phototypesetting font specialist. He reports:

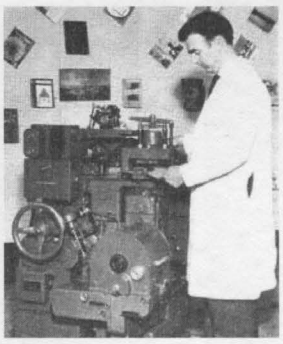
After a five year introduction to the English language in Canada, I came to Philadelphia, Pa. My first job was as a Monophoto Filmsetter operator at Westcott & Thomson. Westcott had a large hot-metal Monotype installation. In 1958 they added photocomposing. Harris Intertype set up Fotosetters. Monotype promoted its Filmsetter at Westcott.

After a few years, eight Intertype Fotosetters, Fototronics, and two Monophoto Filmsetters were in operation at Westcott.

On permanent night shift, I ran off the spools from four dayshift keyboards and did other things. Filmsetters were *not* faster than hot-metal casters, but *louder!* Monophoto never had a workable correction system. Fotosetter film was register punched in the margin of every line, so correction lines could be cut in precisely. A knife corresponding to the leading was used to cut out a bad line and was substituted with a good line. No such mechanical registration on Monotype Filmsetter film existed. We did as best we could. A not-perfect alignment is easily noticed. Everything we did was in film. No paper, no wax, no camera, only contact printing.



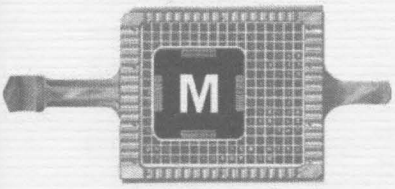
The Intertype Fotosetter was the result of research which began in 1938. It was released in 1949 and was the first means of directly setting type to film via circulating matrices, each carrying a film image of its letter or sort.



The Monophoto filmsetter from Vol 42, No. 2 of the MONOTYPE RECORDER, *Spring 1961.*

Monophoto at first started out with a one-piece glass matrix font. Later they introduced moveable images in separate small aluminum negative holders. The holders eventually turned to dust. Constant pounding of the mat case negatives created dusty images. Plastic replaced the aluminum and that solved the cleaning of negatives problem.

Around 1968, English Monotype decided they wanted their Filmsetters back or we would need to lease



Monophoto film matcase with greatly enlarged single element in center.

them and pay. Westcott was a demo site for Filmsetters and was among the first installations in the U. S. They were not profitable so we opted to let them go. But there was much standing work in progress using Monophoto typefaces.

Big meeting, *what to do?* I opened my big mouth and promised a solution.

Generally, I used a 50x comparator to design and locate most needed pi characters. I tried to get images exactly into Fotosetter blank mats. At first I couldn't get it perfected for fonts. Too much play in film, etcetera. Pi characters were easy—only one or two images at a time. But several mats of each letter (as needed in a magazine) all had to be exactly the same.

I was ready to give up and seriously considered it. But composing room foreman Bill Gooch supported me at his own risk with supplies and money. Then a vision in my head appeared: Use a movie camera-enlarger setup to expose Monophoto images onto 16 mm film. A production unit of film was ordered from Kodak.

Mechanical register is retained by film perforations! Reverse developed and the identically registered negative images are ready.

All hot metal faces on the left had been available at Westcott & Thomson via Monotype and Linotype equipment. The firm found that the only way to continue all offerings was to somehow make its own photo masters. Karl Rathgeb was the one who developed and implemented the system for getting that work done.

We ordered pre-drilled Fotosetter blanks in every unit width and quantities needed. (Fotosetter mat widths established characer *width* in the photo unit so the mats had to vary in width depending on the character image they carried.)

To insert images a jig was used. There still was a problem of how to mark mats for the operator to read in the assembler. Solved: Set the mat ID on strip film and super glue the strip film onto the mats, remove carrier film and cut mats apart with a razor blade.

The changes needed to make all these fonts work for a different typesetting machine was my idea, from beginning to the success of it. These fonts kept Westcott from very expensive changes in its workflow. There was a lot of standing type and unfinished work. It took months to get all the ducks in a row.

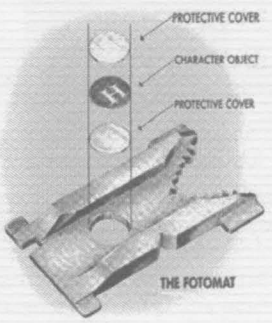
I made all those Fotosetter mats. It took months. Transferred three complete regular, bold and italic Monophoto fonts: Plantin, Times Roman and Bembo to be used on Intertype Fotosetter.

By the time we had completed those new fonts, *Fotosetter had become obsolete.* Westcott decided to buy a Fototronic. My ideas already were in progress for the Fototronic. The procedure for transposing fonts was being worked on by a machine shop. They built, on my instruction, a camera to adopt unavailable fonts for Fototronic.

It took about a day to do a single font. All was just about ready to fly when *Westcott closed its doors.*

That was in March 1971. With no warning, a busy plant with over 100 employees was closed and all were without jobs. Others would have thrown in the towel. But Karl Rathgeb moved ahead to another challenging typesetting adventure. (It was three months before he got his final paycheck.)

He joined Mid-City Press, Inc. in Philadelphia in April 1971 and remained for ten years. He helped established the firm's photocomposition department and was responsible for maintaining and operating the equipment, and training and supervising employees in that department.



The Fotosetter matrix is shown here, as depicted in Intertype literature. Positioning of this tiny circular film image within the matrix was a super-critical concern. Karl Rathgeb developed his own system for making these matrices.

He was responsible for producing the type for up to twenty-eight regional editions of *TV Guide* every week, plus other publications and books. The phototypesetting system used consisted of three Linotron 505's, a Linotron Counting Keyboard, a CSI computer system with typesetting software and other keyboards, CRT terminals, papertape printers and readers. In 1979 the firm converted to Linotron 202s, including a Linoscreen Composer and Mergenthaler software. Rathgeb made this conversion a success. The job ended abruptly when the *TV Guide* contract was lost because of a change in binding methods.

His next job was *The Daily Racingform* in Hightstown, New Jersey, which used Linotron equipment. But all too soon, the company installed Quark, Pagemaker and RIP programs. The new system was tested. As he reported in *ATF Newsletter 33*: The first editions were prepared on both the Linotron system and the new system. To their amazement (and disgust) the new system performed well, and within a few days, the entire phototypesetting system was dismantled and most employees released.

Karl Rathgeb, now 85 years old, resides at Willingboro, New Jersey.

This is a specimen of Fotosetter Colonial Script, showing the phenomenal precision accomplished via the system. All point sizes were produced from the same photo matrices via an exposure system in the machine, which replaced the pot and casting mechanisms of Fotosetter's hot-metal cousin. The matrix magazine was increased by 27 channels to accommodate true small caps and other outside characters. This script capabilitiey was very popular with firms producing formal invitations and stationery.

60 point

The Fotosetter has all the

An Invitation to Dance

Big Claims of '52 ATF Ad Were Never Fulfilled

On this page you see a resetting of an ad for American Type Founders Company which appeared in the February 1952 edition of *Western Printer & Lithographer*, sent to me by Jim Daggs via Mike Coughlin. Seeing the ad triggered all sorts of crazy responses as I went down a nostalgic trail to earlier days of buying type, dealing with ATF, and the "image" ATF projected with this ad.

First I talk about the ad itself. It was a full-page featuring three type packages (wow!) and a ghost image of a man making a purchase. The box in his hand is either a font of type or a pack of cigarettes. Would you believe? The most dominant item is a black box with type reversed out reading, "As Easy To Buy As Cigarettes." Certainly attitudes about smoking have changed since 1952, but that copy still is *imbecilic*.

The typography is poor. It's too early (1952) for early strike-on typesetting, but the ad still looks like a sloppy pasteup from the 1960s. Text is in Garamond, but it's too small and poorly arranged. The artwork is too large and hardly captivating. The main all-cap head is in Spartan Bold Condensed. The whole thing, I am sure, would make Bullen, Benton, and other legendary ikons from ATF's past roll in their graves. It certainly was not "exemplary typography," the thought ATF was trying to sell through the ad.

I just *had* to reset the ad because the original was ugly and not worth the space it would consume.

It seems to me that ATF, in its latter years, failed to correlate the reality of its operation with the claims made in its advertising. My very first purchase of type was made from the Cincinnati branch of ATF around 1954, two years after this ad appeared proclaiming a new policy of fast delivery.

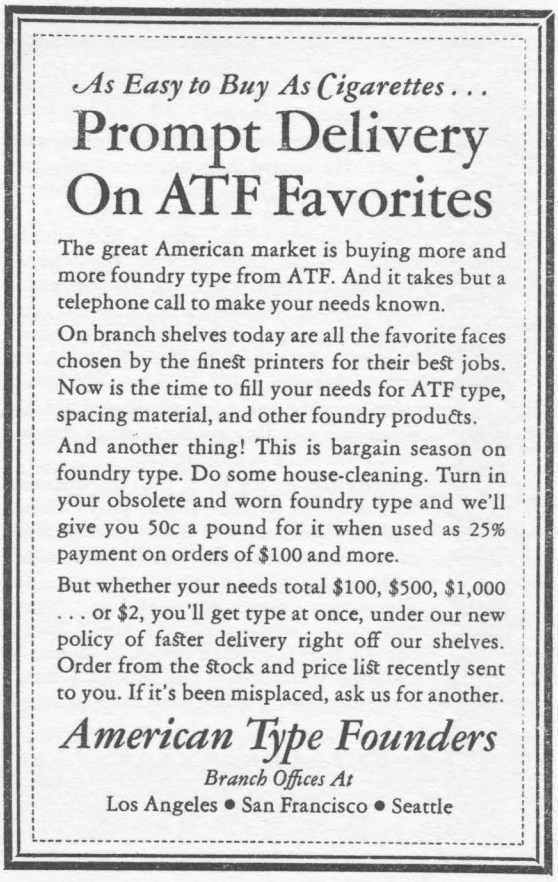
The actual amount of time involved in my purchase is forgotten, but to a youngster spending hard-earned money from delivering newspapers, to me it seemed to take ATF *forever* to fill my order for a font of 14 pt. Bernhard Gothic Medium and a font of 18 pt. Kaufmann Bold. The order was never acknowledged, and we (my mother and I) knew nothing of what was happening with the order until we got a phone call from the local Railway Express office saying a parcel was there for pickup. Remember Railway Express? That was my only experience with Railway Express too! So much for expedited delivery!

Now let's look at the main thrust of the ad—that type was readily available at the various branches. I never visited an ATF *branch* office, but in the 1960s I did spend time with an authorized dealer in Pittsburgh. The impression I got was that a dealer had to buy whatever stock he felt he could sell, and once it was in his shop, it was his problem.

Anticipating what might sell always has been a crap shoot. The branch had a large supply of type on its shelves, but it was a hodge-podge of partial fonts, slow-moving designs, and, frankly, a lot of dead weight which ultimately they would have to "eat." The impression I get from the ad was that ATF was moving away from filling orders direct from the foundry to filling orders from branches.

Keep in mind this was decades before computers and Internet connectivity, but spreading inventory over a dozen or more branches would almost guar-

(*Continued to page 37*)



As Easy to Buy As Cigarettes . . .

Prompt Delivery On ATF Favorites

The great American market is buying more and more foundry type from ATF. And it takes but a telephone call to make your needs known.

On branch shelves today are all the favorite faces chosen by the finest printers for their best jobs. Now is the time to fill your needs for ATF type, spacing material, and other foundry products.

And another thing! This is bargain season on foundry type. Do some house-cleaning. Turn in your obsolete and worn foundry type and we'll give you 50c a pound for it when used as 25% payment on orders of $100 and more.

But whether your needs total $100, $500, $1,000 . . . or $2, you'll get type at once, under our new policy of faster delivery right off our shelves. Order from the stock and price list recently sent to you. If it's been misplaced, ask us for another.

American Type Founders

Branch Offices At

Los Angeles • San Francisco • Seattle

This page has been Monotype composed and letterpress printed direct from the type.

My Failed Efforts to Reclaim a Vietnamese Border

I was one of the lucky ones who got to go to Vietnam on an all-expenses-paid adventure compliments of the United States Army back in the 1960s. During my off-duty time there, instead of seeking cigarettes, whiskey and wild wild women, I sought out *type*. This article is about *type*, not Vietnam, though that subject will enter the conversation.

For a very brief period while in Vietnam, I worked with a small, hand-set English-language daily newspaper published in Saigon called the *Saigon Post*. Honest It was hand-set by a legion of young boys wearing little more than loin cloths. The supervisor took typewritten copy from the newsroom, numbered the paragraphs, cut the copy sheet apart and gave a paragraph to each boy. They went to their assigned stands and with composing sticks honed out of wood, they composed their paragraphs. Then they lined up at the stone and the stoneman assembled their "takes" into the finished story for the next edition. This was a picture right out of the eighteenth century.

I asked the editor, "where do you get your type?" He handed me a specimen book from the Vien Hung Type Foundry right there in Saigon. (I retain that book to this day.) It took a couple of months to find time to search out the sales office at 181 Nguyen Thai Hoc. They spoke no English and I didn't speak Vietnamese so it was a most interesting visit. But I was able to procure a font of a decorative border which you see around this page.

At that time I was *not* a typefounder; I had never seen a casting machine, much less run one. I was just a hobby printer.

I returned to the U. S. with my treasured font and tried to pull a proof. That's when I first became aware that fonts made in other countries weren't to the same dimensions either in body size or height-to-paper. The Vietnamese type was cast to French dimensions which made 36 points bigger and the type taller than American standards. Proofing was aborted but at least I didn't mash any type. I didn't have necessary tools to work with it further, so I put it in a drawer and forgot about it.

Years later I happened upon the drawer and noticed the font had turned dark gray. I assumed this was oxidation. I didn't have time to mess with it further, so I coated the face of everything with a heavy layer of Vaseline petroleum jelly and left it be. I did not take time to discern whether corrosion had altered the face of the types for I still thought myself unable to *use* the type. It remained unntouched for the next 45 years.

Early this year I had *water* encroachment in my printing shop and in the process of cleaning up, I came across the Vietnamese font. This time I studied it closely. I was not happy for all pieces now had a gray-white powder stuck to their bodies; the Vaseline had dried out and now clung to the faces like tough lacquer. "Either make it usable or throw it out," I told myself, so an attempt at restoration was begun.

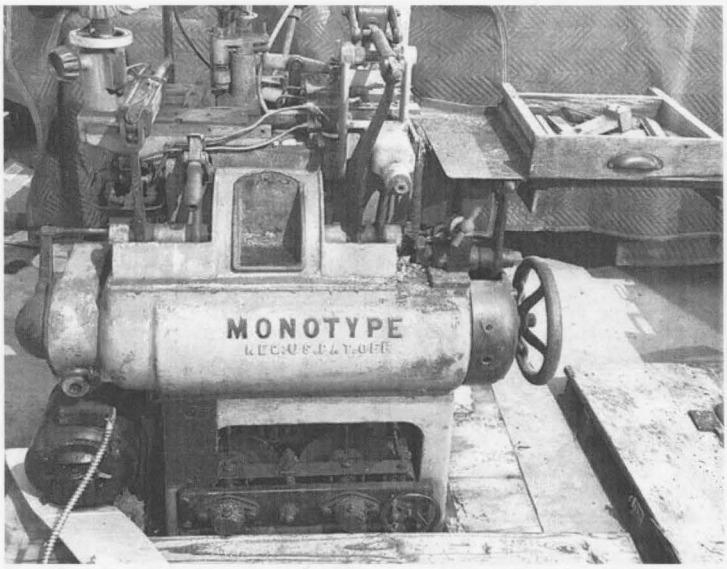
I am now a seasoned typefounder so I see type quite differently. Metal used to make the type was a "lead-heavy" alloy, probably with many impurities, which accelerated corrosion. Exposure to sea air shortly after it was cast started the corrosion and Vaseline was a poor preventive applied too late.

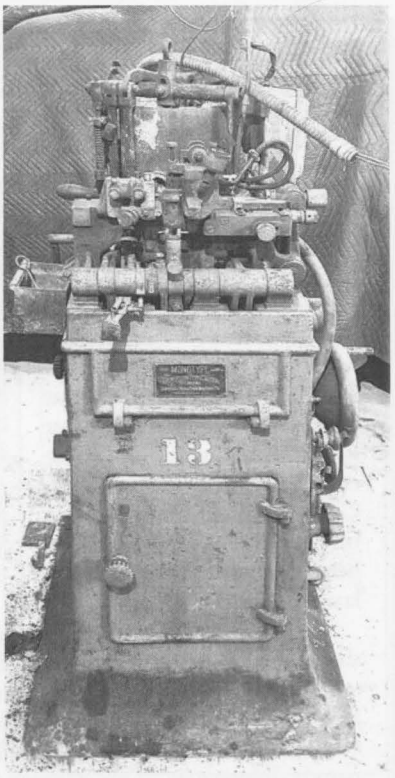
I tried type wash. Then I soaked it in lye water. The Vaseline didn't budge. I tried commercial cleaning solutions to no avail and finally used pure acetone in an attempt to clear off the faces, but still the Vaseline remained in the crevices. Studying the type at this point discouraged me greatly for it seemed pitted, and the finer lines seemed to have disintegrated. I also had trouble with the gray powder which clung tenaciously to the bodies. I cleaned them up by rubbing the four sides on a file much as I would in dressing newly cast letters.

Bodies were well cast and dimensionally very consistent. The specimen book included a photo of an Iwahashi (Japanese) casting machine, which apparently was used for the casting. I corrected height-to-paper by using

Continued to page 27)

This page has been Monotype composed and letterpress printed direct from the type





Direct Result of "Pressing On" Movie Debut—

Enthusiast Finds, Buys Machines

Intercepted email message: "I would like to get on your mailing list for the *ATF Newsletter.* I am new to typecasting and am interested in connecting with others on this subject.

"I have had a Ludlow for about a year and last week rescued a Monotype Giant caster and a Thompson Typecaster from a building that was scheduled to be destroyed, contents included.

"I enjoyed your part in the letterpress film. I was at the opening in Nashville and was able to meet Greg Walters and ask a few questions about my findings. I had not seen the casters at that point, but went by the old building in Knoxville on my way home from Nashville, picking them up two weeks later."

The message came from Larry K. Johnson of Cantonment, Florida, <larrykj77@gmail.com> who indicates he also grabbed a 1928 Hacker Proof Press, "an extremely rare bird," explaining that recently he had finished restoring another Hacker Press.

When he was pressed about having a willingness to get down & dirty in reclaiming these machines (a Giant Caster and a Thompson)—especially after seeing their present sorry state—he further explained:

"I am willing to get my hands dirty. I enjoy restoration work so much. My dad was an Air Force mechanic and after he retired, he restored antique cars for nearly fifty years. (he's now 75). He taught me all I know about restoration, mechanics, and tools.

"I possess the technical skills to restore these casters. The only thing I lack is the knowledge/experience on these specific machines. Which is where training come in. Greg Walters said that I could come out to Ohio for a day. Sky at Skyline offered teaching on the Thompson, and perhaps you could be persuaded to do another Monotype U?

"For now I think it would be wise to pursue it in this order: (1) find parts, (2) get hands-on training, and (3) proceed with restoration and operation."

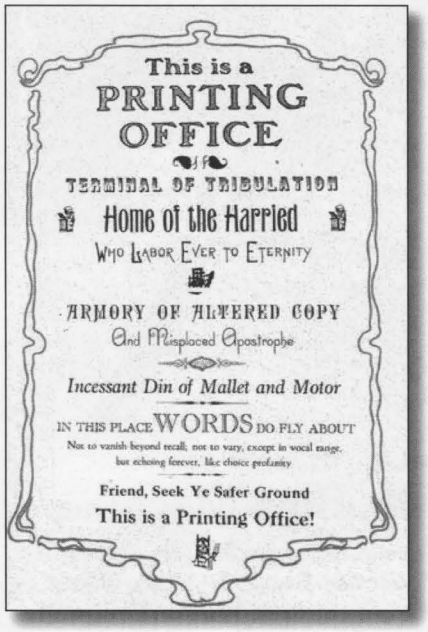
A novice would be totally repulsed by what he/she sees in looking at these machines. But the resilience of the machines and evidence of their future usefulness will rise with the removal of dirt, grime and rust as they come back to life. They're well-built and since they're nearly all mechanical, restoration is, indeed, a distinct possibility.

One can get his/her best inspiration by looking over the late Jim Rimmer's magnum opus, *Tom Sawyer,* and realize all the work was done on a Colt's Armory Press which Jim found half-buried in a cornfield and completly "frozen up," with parts missing.

That brings up the greatest value of our American Typecasting Fellowship. It's a group of people profountly interested in preserving the machinery and technology of type making in all its many variations. More importantly, we're committed to the idea of helping others get started. Because so many of us have plenty of "parts and spares," we surely can help this new enthusiast get his work done. *Send him an email today and get a relationship going!*

Source for "This is a Printing . . ." Parody Discovered

Beatrice Warde was publicity manager for English Monotype, a noted typography scholar, as well as a colorful personality. She penned her famous broadside *This is a Printing Office,* to show Perpetua Titling, recently introduced by English Monotype. It has since been found on the walls of numerous printing offices, has been cast in bronze and is mounted at the entrance to the United States Government Printing Office in Washington, D. C., and has been translated into numerous languages.



Phil Driscoll has done a book showing the message in numerous languages of the world. Before doing the book, when he visited Terra Alta he noticed a parody decopauged to my stairwell wall and asked about the source for the parody. I didn't know. The piece, as shown here, was set up in Victorian faces by John Arnold, an engineering professor at Stanford University (if my memory is correct) and distributed through the Amalgamated Printers Association bundle shortly before his untimely death in 1963. Though Phil reproduced the parody in his book, source for the text remained unanswered until recently, when he sent this note:

"I have discovered that the parody version of "This is a Print Shop" which you have glued to the wall in your stairway was published in the *Monotype Recorder,* vol. 42, no. 1, Spring 1960. There it is attributed to a C. Denman, a student at the Rochester Institute of Technology's School of Printing."

Phil also just discovered a website which has sixty editions of the *Monotype Recorder* available for downloading: <http://www.metaltype.co.uk/monotype_recorder.shtml>

Quaker City Typefoundry Closed; Equipment in Limbo

Bill Riess, third-generation proprietor of the Quaker City Typefoundry, Honey Brook, Pensylvania, has closed operations and now is in the process of inventorying equipment prior to liquidation.

Initially he was remaining open, filling orders from stock in the shelves, but that phase now has ceased and all inventory has been liquidated.

At the last ATF Conference, Rich Hopkins injected much discussion of the situation and had every indication that liquidation was imminent and action was necessary to save equipment from destruction. "Bill had told me that he wanted to be done with it and that he was going to haul everything to the landfill. That attitude has now changed and Bill is now much aware that there are several people with interest in both his machines and matrices." Apparently Bill's health situation has stabilized to the point where he now is diligently working to prepare a comprehensive inventory of the matrices he has on hand, with the intention of having some sort of sale once that work is completed.

Bill. who has always been prudent in maintaining the best possible matrices for the fonts listed in his catalog, assures that all those fonts are still present and in good operating condition. His concern now is to review a significant number of additioal fonts he has acquired over the years, which never were in his catalog nor in daily use.

Always being focused on not selling a buyer short, Bill insists that he must check out each of these fonts for completeness and usability before he makes a public offering. He is able to stand only for about two hours daily and thus is not able to proceed quickly in completing this inventory.

"What about your machines?" he was asked. His response was that he will get the mats worked out first and that he was not going to give the equipment much attention until the mats are sold. "The urgency seems to have abated," Rich Hopkins notes, "and thus, those who have expressed interest in Bill's equipment and mats must remin vigilent but we're at Bill's mercy as to when things might happpen."

Simple Worn Part Fouls Line Justification Accuracy

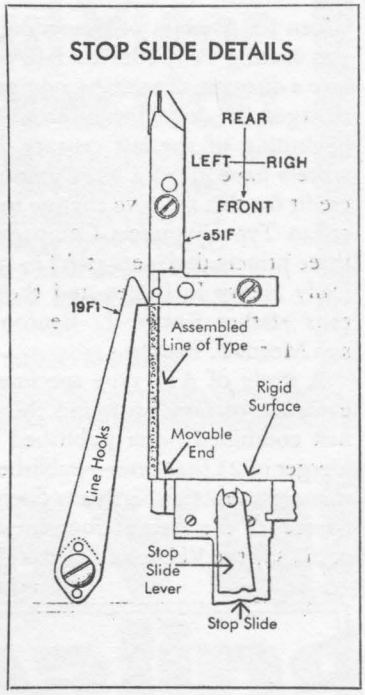
Recently when operating my Composition Caster I came to the realization that I had been tolerating a worn part for many years and it was affecting my ability to produce properly justified lines. It all happened because I was hunting through a pile of spares stripped from two Casters I had junked years ago.

What got me into this was a request for parts from Dan Jones at Newmarket, Ontario, Canada. I did find two items he needed. And in the process I found an assembly which piqued my curiosity. It seemed to be in much better shape than the one presently on my caster.

"Stop Slide" is what I *assume* the component is called. Neither the English nor American manuals specifically name it, but it is implied. It's a "Stop" because it holds up the end of each line as it is pulled into the galley, and it "Slide"s back and forth to adjust for different line lengths, held in place by a single wing nut on its top.

The "End" (which first comes in contact with the type line) moves left to right, enabling the machine to stop itself if a line comes into the galley that is either too short or too long. When pushed to the right it activates the "Stop Slide Lever" which in turn stops the machine.

The new (to me) part which I found confirms that *the End of the Stop Slide should have virtually no front-to-rear play.* My older one had perhaps two points of play. This meant that of necessity, I could not keep it tight against the ends of recently delivered lines. If I did, the lines would jam up after four or five lines got into the galley as they came up against the rigid right-end portion of the Stop Slide.



So what's the problem? All these years I was not able to detect line-length variations until four or five lines had come into the galley. I could not ascertain whether micrometer adjustments had corrected a problem until another four or five lines were cast. It meant a guessing game continued for 200 or more casts before I got assurance my line length was, indeed, accurate.

With the new Stop Slide in place, I can set line length precisely (the manual suggests about a point over measure to allow for squeeze). Next time the machine delivers a line, if it holds the line sufficiently not to wobble in the galley, then it is probably accurate. If the Stop activates and stops the machine, obviously the line is too long.

Being able to judge the accuracy of a line length immediately has saved much time at the caster. I have run over 500 lines since installing the new part and frankly, these lines are among the most accurate I have ever done. Had I known this tiny part was so critical, I would have found a way to shim the End to eliminate the play. This surely could have been done —had I realized how important it was.

(NOTE: This article has been cast in 10 point 20th Century Medium 605 for the sake of comparison. The other article on this page is 20th Century Light 606.)

The typeface utilized here is 10 pt. 20th Century Light 606. It is being presented here to provide a first-generation specimen of the Light version, which can be compared with 20th Century Medium 605, used in the article above. Both fonts have been cast utilizing Lanston-issued wedges, matrix case arrangements, and set widths.

A secondary comparison also may be made with 20th Century Semi-Medium 613, which has been used on pages 22, 23, and 24. As explained on page 23, wedge and set-width info was not available, so I was forced to use components designed for other fonts. Is the Semi-Medium interpretation loose or tight? Are letters comfortable at the widths assigned to them? Indeed, are the sets of the two fonts on this page too wide? Lanston Monotype boasted that its font widths could be reduced by a quarter point, or opened up even more. But specialized wedges for such modifications rarely were available.

Did ATF Cause Death of Victorian Typography?

When Jim Hedges of Needmore, Pa., was visiting Terra Alta last fall, we got into a discussion as to why typography changed so dramatically around the beginning of the last century. Many writers have given a huge amount of credit for this massive change to American Type Founders Company and three principal players at ATF, specifically Henry L. Bullen and the Bentons—father Robert L. Benton and son Morris F. Benton.

Typical typography and ornamentation of the 1890s.

A study of ATF type specimen books provides evidence of how profound this change was. The first combined book published by ATF after the merger of 23 foundries—published in 1896—carries numerous exotic specimens from the combined resources of the merged foundries. At that time one could say the Victorian Era was alive and well.

Good Printing

• • •

The refinement of good printing is apparent in the product of the World Printing Company. The artistic touch is dominant in the harmony of effect produced.

Correctness of Style

in all engraved and printed work is manifest. Each order, whether an engraved announcement or a bulky catalog, receives the same intelligent attention from our experts.

Our many portfolios of samples will help you make satisfactory selection.

WORLD PRINTING COMPANY
325 Polk Street, Belleville, Michigan

"Refined typography" as demonstrated in the DISTINCTIVE TYPOGRAPHY *book.*

But the forces of change already were at work. Joseph Phinney, who had launched the "type *family*" concept at his Dickinson Type Foundry in Boston before ATF was formed, was in charge of the massive effort to pare down the typographic assets of the new company. The book states that "the American Type Founders' Company recognizes the general advance in the art of Typography. . . . This advance it means to encourage and lead."

One could assert that the ATF merger signaled the end of typgraphy's Victorian Era with all its flamboyant, exotic, eccentric, technically difficult designs (the very stuff that is so enticing to many who are trying to keep alive our typecasting heritage). By the time ATF published its monumental 1923 specimen book, virtually all remnants of the Victorian Era had been discarded. The more direct, unadorned nature of classic typography had emerged as the dominant "style" of this new, "enlightened" era. Of course Bullen and the Bentons were largely responsible for this change at ATF.

I commented to Jim that these "tides of change" also had come from *outside* the typefounding industry, and remarked that the *Inland Printer* frequently presented specimens in its pages with commentary on their more direct, simplified appearance. Jim agreed, saying something to the effect that he "had the book" on the subject. I didn't know what he was talking about.

After Jim returned home, he sent "the book" to me for study and I was amazed. Titled *Distinctive Typography*, it carried the address "Altoona, Pa., 1918," though it must have been published by the Henry O. Shepherd Company of Chicago, the firm which also published the *Inland Printer*. The book contained well over 100 unnumbered pages, all

displaying "examples of high-grade printing taken from the *Inland Printer* between 1913 and 1918."

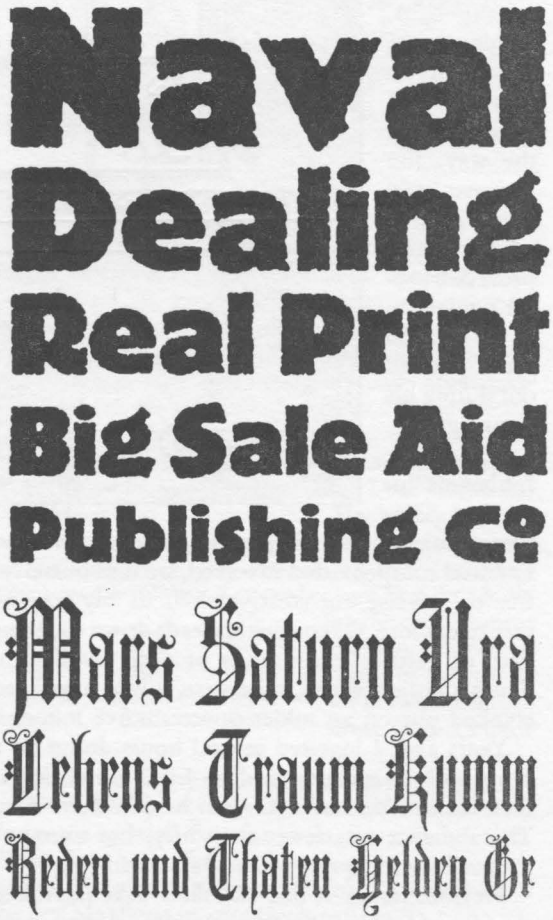
Specimens represented all aspects of printing including letterheads, envelope corners, title pages, Christmas and holiday greetings, window cards, business cards, menus, programs, labels, tickets, posters, blotters and advertising. Without exception, these examples embraced monotypographic harmony (the use of only one or two primary typefaces), more generous apportionment of white space, and the attainment of emphasis through contrast in type sizes.

Though the book is now dated as to subject matter, its typography and design remain exemplary. Some obsolete subject matter? Ads for Pierce-Arrow automobiles, blotter designs and perhaps window cards (have you seen a blotter lately?). A major difference in the typesetting itself was *minimal use of numbers*. Telephone numbers were just coming into vogue and were generally only four digits. Street addresses most often did not include numbers.

It was evident the book had close association with Chicago, for samples presented often utilized type designs unique to the Barnhart Brothers & Spindler foundry of Chicago (which functioned independently of ATF for another two decades).

I do no have many turn-of-century specimen books, but those I do have from ATF, BB&S, Keystone and Boston all show a similar marked trend away from Victorian typography. Victorian was universally evident in books published before 1900, but by 1907 those faces had virtually disappeared in specimen books. No doubt there were hangers-on—printers who had the old types in their cases and continued to use them. But the *Inland Printer* and other trade publications joined in the movement suggesting that such typography was no longer in vogue.

Distinctive Typography gives clear evidence that the move away from the adornment of Victorian typography had been finalized in the printing industry by the time the book was published in 1918. The trend seems to have been reflected by diverse foundries at the time. Thus, perhaps it is an over-statement to say that ATF—by itself—spearheaded the movement.



Advertisers Gothic (in the top box) and Pubicity Gothic from BB&S, as well an ultra condensed text letter called German Gothisch from ATF were shown in the book.

This page has been Monotype composed and letterpress printed direct from the type.

Start With A Sketch and A Composing Stick

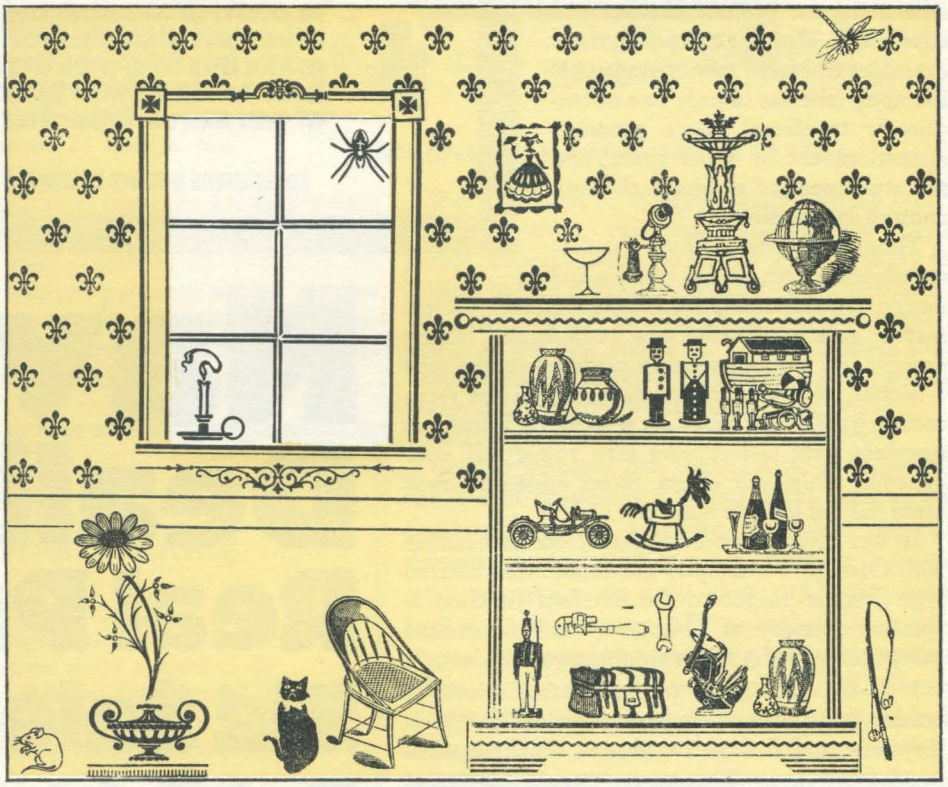
One factor which often gets overlooked in our Fellowship is the simple fact that our associates lead lives outside the realm of typecasting. Believe it or not, many have involvements in religious, fraternal, civic, and even political organizations. The fun begins when we agree to print stuff for those organizations.

Jim Hedges of Needmore, Pa., in 2016 was candidate for President of the USA, running on the Prohibition Party ticket in three states. By the way, Jim won over 5,000 votes. And he used his Kluge press & hand-set type to do all the political cards passed out during his campaign.

I said "the fun begins" for a reason. Since these projects most frequently are done with no financial compensation involved, we find ourselves free to exercise our creative skills in any way we care to explore. Of course this leads down the scary path of getting many hours of time involved in doing a project which, otherwise, might have been cranked out on an inkjet printer in five minutes.

Years ago, I invested several hours doing up a program for a marionette show I was presenting at First United Methodist Church here in Terra Alta. The audience was fewer than fifty, but everyone had well-printed programs and a keepsake too.

Previous issues of this *Newsletter* have provoked the idea of building "pictures" by assembling type, rule, border pieces and ornaments. Perhaps the idea was looming in the back of Stan Nelson's mind when he took on the job of printing a handbill promoting a fundraising yard sale held in behalf of his church—Saint Agnes Catholic Church at Shepherdstown, W. Va. The handsome piece gave full details about who, what, where and when, and it was topped off with a display suggesting some of the items which might be found at the sale—a genuine type picture. I was so impressed I asked Stan to let me borrow the form (shown above).



Stan says he started out with a rough sketch, a bunch of ornaments he'd set aside, and the work began in a composing stick. Soon it outgrew the stick and all was moved to a galley but the work continued. Everything had to be tight on all sides. Stan says he couldn't be sloppy for he intended to lock up the finished form and print many copies on his 10x15 C&P platen press.

Of course liberties are allowed in building type pictures—relative size, perspective, and sometimes even relevance. I love his cat & mouse, the spider and the dragonfly. What's that thing beside the wine glass? If you say it's your grandmother's telephone, you're really old.

This page has been Monotype composed and letterpress printed direct from the type.

A Case Study In Combining Ornaments

Elsewhere in this edition you will find a review of a book which reveals that the GRANJON ornaments date back to the sixteenth century. Lucky for us all, those designs were sought out, re-drawn and made available in matrix form by several companies which made typesetting machines in the twentieth century.

It has been pointed out that several of these ornaments were designed as *combinables*, which means they were intended to be used together in varied and fascinating ways to create images which are both beautiful and quite useful in helping establish the proper mood for the printed product in which they are used. Although these ornaments have been around for several centuries, they have not stagnated. They are just as fresh and vibrant today as they ever were. The key is &nding new and varied ways of utilizing them.

Recently I was most fascinated upon seeing a combination Patrick Reagh (of Sebastapol, California) came up for use on a label he created to identify fresh new type fonts of his making.

The design herewith originally was printed in green and black inks on an orange paper. That's the reason for the color tint behind this showing.

It all works together so well, you might assume Pat just sat down with his composing stick and threw it together in ten minutes. That's hardly the case. Most likely he spent much time studying specimens looking for ornaments with imilar features that might lend together. In this instance, h was not a le to con&ne hi se rch to just the English Monotyp book. He wa intrigued with the Granjon d sign in the English book, but there it was offered o ly in 18 and 24 point. Pat felt a l rger size was needed for his design to work properly.

All specimens shown above are 24 point

It is fairly well known that the English and American Monotype companies shared patterns. As luck would have it, the American &rm did offer the design in larger sizes and fortunately, Pat had those matrices.

Pat observed the Granjons by themselves (in his arrangement) gave a choppy outline which needed some help. Pat found that help in an ornament offered only by the English. Fortunately again, American and English matrices are easily cast (if all necessary components are on hand) using the same equipment becasuse they are of the same drive depth.

Pat says. "The design didn't happen in a vacuum. I was fortunate after completing my trade apprenticeship to work for Saul & Lillian Marks of the prestigious Plantin Press in Los Angeles. Saul was well known as a master of typographic ornamentation.

As the last employee in their shop, I was able to buy their Monotype equipment and Heidelberg cylinder press. Among the great collection of comp mats were all the Granjon display mats and many more. As a starry-eyed employee, I remember spending time looking through the many standing ornamental forms in galleys. As for talent, other than Bruce Rogers, I think that Saul was about the best in his ability to create ornamental designs.

"The trick, if that is the right word, for harmonious designs is to select fleurons having a uniform 'color.' When done right they look as they are growing together. Not always an easy task, but the ingenuity of the designs allows in&nite combinations."

Postcript: Artistic presentations of ornaments are the epitome of our grand letterpress tradition. If you have done a presentation which you feel is exemplary, share it with us through this *Newsletter*? Send me a proof and we will take it from there.

This page has been Monotype composed and letterpress printed direct from the type.

Futura 90th Birthday

A new year's greeting from our friend in Dresden, Germany, Eckehart Schumacher-Gebler, has brought our attention to the 90th birthday of the Futura type design. It was created by Paul Renner for the Bauer typefoundry and has experienced continuous popularity since introduction. Renner was inspired by the Bauhaus design style. His original design (named Architype Renner) included geometric character alternatives and old-style figures, but these components were dropped as the design became popular. Eckehart noted that a commemorative exhibit was on display at the Gutenberg Museum in Mainz in April.

Initially, Futura was intended for body text for books, but in the 1950s and 1960s it became popular for headlines and subheads. The family grew to include book, semi-bold, bold condensed, light, light oblique and regular oblique weights. Other designers added to the Futura family, which now includes over 20 variations.

Eckehart's card tweaked my interest in doing at least part of this *Newsletter* in what Lanston Monotype called "Twentieth Century." My check on the design via Mac McGrew's *American Metal Typefaces of the Twentieth Century* reveals the following details:

World War II stopped the supply of German type in the U. S., so Baltimore Type (which basically was a Monotype house, but had expanded into making electrodeposited matrices both for itself and other shops) responded by creating deposited matrices (made from original Bauer castings) and offered "Airport" in several sizes and variations. This occurred several years before Lanston Monotype added the face to its repertoire. Over the years Lanston expanded the family greatly. All of Lanston's design work was done by Sol Hess.

American Type Founders called its version "Spartan." Linotype and Intertype issued the design under its original name. Ludlow issued a close match called "Tempo," designed by R. Hunter Middleton.

Study of matrices in my Monotype collection lead me to conclude that Twentieth Century Light was too light, and Medium was a trifle too heavy. Apparently that same observation was made back in the 1940s and 1950. Lanston responded by issuing an intermediate weight, calling it Twentieth Century Semi-Medium No. 613. I have 8 and 10 point matrices for this strange bird, and I chose to use the 10 point for this text. My problem was that I had no paperwork telling me what wedges were necessary, or what the various row widths might be in the matrix case. I only knew that the *Lanston Specimen Book* said the 10 point font was 9 set. Mats were arranged precisely the same in my two 613 die cases so I assumed the mats were appropriately paired as to set width. At least that was a starting point

Since I have about 50 different sets of wedges, the puzzle was to find a wedge that *might* work with the mats. My study of other Twentieth Century fonts on hand told me most started with a 4-unit row, so I sought 9-set

Monotype 20th Century Family

I Am the Leaden Army that Conquers the
Monotype 20th Century Light, No. 606

I Am the Leaden Army that Conquers the
Monotype 20th Century Light Italic, No. 6061

I Am the Leaden Army that Conquer
Monotype 20th Century Medium, No. 605

I Am the Leaden Army that Conquers
Monotype 20th Century Medium Italic, No. 6051

I Am the Leaden Army that Conquers the Wor
Monotype 20th Century Medium Condensed, No. 608

I Am the Leaden Army that Conq
Monotype 20th Century Bold, No. 604

I Am the Leaden Army that Conque
Monotype 20th Century Bold Italic, No. 6041

I Am the Leaden Army that Co
Monotype 20th Century Extrabold, No. 603

I Am the Leaden Army that Con
Monotype 20th Century Extrabold Italic, No. 6031

I Am the Leaden Army that Conquers the Wo
Monotype 20th Century Extrabold Condensed, No. 607

I Am the Leaden Army that Conquers the Wor
Monotype 20th Century Extrabold Condensed Italic, No. 6071

I Am the Leaden Army That C
Monotype 20th Century Ultrabold, No. 609

This showing of 20th Century variations was found in the Lanston Monotype looseleaf specimen book. Six additional variations were added after the list was printed. They are Medium Condensed Italic 6081, Bold Condensed 612, Ultrabold Italic 6091, Ultrabold Condensed 610, Ultrabold Condensed Italic 6101, and Ultrabold Extended 614.

This page has been Monotype composed and letterpress printed direct from the type.

wedges with a 4-unit first row. David Bolton's master list of Monotype wedges and their row widths (compiled with the help of myself and others several years ago) was a great help. I found four 9-set wedges starting with a 4-unit row: S-300, S-302, S-315, and S-325.

The only confirmed specimen of Twentieth Century Semi-Medium available to me was the showing in the Lanston book, so I chose to cast that text and make a visual comparison of my results. I started with the S-300 wedge. This was a dismal failure; nearly all narrow characters were too narrow, causing them to bump into each other. I made note of the wrong widths and figured the S-325 wedge might be a better match. I also concluded the S-302 wedge would produce overly wide characters in most rows. Incidentally, I discovered the S-315 and S-325 wedges were exactly the same!

I re-cast the specimen paragraph using the S-325 wedge with better results—but far from perfect. Then I moved letters to alter their widths and cast again. I hasten to note that the Welliver computer interface greatly facilitates an effort such as this. First change the mat case itself. Then change the computer file representing the matrix case arrangement. Then re-process the text using the new arrangement.

Lengthy study with a magnifier told me about 30 characters were casting too wide, and a few were too narrow. This analysis was facilitated by casting five of every character in succession, which, when proofed, would help reveal characters too wide or too narrow.

Three times I rearranged mats to gain more pleasing results. The showing here presents the font generally more tightly fit than shown in the *Lanston Specimen Book*. But it is the best I can accomplish.

The Monotype system is so flexible that you can, through justification wedge manipulation, make a character wider or narrower. This always has been possible but rarely implemented because tenuous calculations are required of the keyboard operator to pull it off. Wisely, Bill Welliver built this routine into his mat case arrangement software, making alteration of unit widths a simple change in the computer file which mimics the mat case arrangement.

For the casting machine to do this work it must stop the pump for two revolutions while the coarse and fine wedges are re-positioned, then cast, and then two more idle revolutions to reset the wedges to their original positions. That means each altered set requires five machine cycles instead of one. For this reason, wherever possible it is preferable to keep "altered sets" to little-used characters such as q, x, z, and k.

This lengthy discussion is presented as testament to the fact that with effort, an operator *can* produce justified composition on the Monotype even when his/her matrix fonts are "orphans." (That's a term I use to define matrix cases which are not accompanied by matching stop-bars, wedges, and paperwork. As a concluding quiz, I note that one matrix is missing from my matcase and thus, there is one "wrong font" in this setting. Can you find it? And yes, I was forced to cast italic figures one unit too wide. I assume their use will be minimal and that the change is hardly perceptible.

This exercise consumed a tremendous amout of time in matrix manipulation, study of results, and additional trial castings. I seriously doubt whether it was worth the effort. But it's no more a waste of time than my wife's obsessive efforts to solve Sudoko problems in the newspaper!

My first awareness of Futura was noticing its heavy use for newspaper headlines. Renner may have intended the font to be used for text composition, but such a concept was a little ahead of its time. Eventually it did catch on and in a very big way.

Futura received very heavy use in the 50s 60s and 70s. I reach this conclusion by observihg heavy wear on matrix fonts I have. U. S. Steel had a special arrangement made for 20th Century and I have two mat cases made to that arrangement. They're literally. "beat to death."

Maybe now is the time for a Futura revival? *HAPPY BIRTHDAY FUTURA!*

ABCDEFGHIJKLMNOPQRSTUVWXYZ&
abcdefghijklmnopqrstuvwxyz (.,-:;"'!?)
$1234567890 fifffl

This is a complete showing of 24 pt. 20th Century Bold Italic (No. 6041), Sol Hess's interpretation of Renner's Futura design. The face was done for the American Lanston Monotype Machine Company around 1940. This casting is done with tight inner-letter spacing, a contrast to looser letter spacing in vogue a century ago.

This page has been Monotype composed and letterpress printed direct from the type.

Manipulating An Old Font for "Modern Eyes"

WHAT MIGHT BE THIS TYPE'S NAME?
ABCDEFGHIJKLMNOPQRSTUVWXYZ&
$1234567890 MATS FROM TRIANGLE TF

This is the story of a 17-year-old casting project. It was begun back in 2001, just after I purchased from Les Feller about 100 fonts of antique designs which he had acquired from Triangle Type Foundry of Chicago about 20 years earlier when Triangle closed down.

The mats were "flat," made for use on the Thompson. They were not to the proper size nor were they chamfered and thus, they could not be cast on the Supercaster or the Monotype Sorts Caster. Eventually I developed a way of chamfering them using my drill press and a jeweler's saw, and the same equipment was used to reduce their size to Lanston Monotype standards. This was done so I could cast the mats on my Super or Sorts Caster, equipment which I strongly prefer.

Triangle Type Foundry obviously was intrigued by the apparent success of Charles Broad and his Typefounders of Phoenix. Broad was offering revival castings of Victorian fonts which had gone out of style in the USA very early in the 20th century. Triangle had the skill and facilities and began an aggressive program of copying Broad's castings via the electrodepositing process, and also copying a few other Victorian fonts they happened upon. But for some reason, they never got around to aggressively marketing their newly acquired designs. The only known place where their fonts may have been sold was through Typefounders of Chicago.

Charles Broad named this font "Japanette." We will never know why. Though my experience with Japan is extremely limited, I see nothing in the font which suggests Japan. Broad had ectrodeposited mats made from an original font cast by Barnhart Brothers & Spindler of Chicago. Their 1894-95 book shows the font, and it also appears in their 1900 book on page 384. It was offered in sizes from 8 point to 48 point. The very descriptive name given the font by BB&S was "Wedge Gothic." Broad copied only the 18-point size. Incidentally, Broad had to have good specimens of these old types to accomplish his task, and often he tapped the resources of fellow hobby printers to acquire original castings.

Now we get a bit technical. When I studied Broad's one-line specimen, I had a feeling the font was cast on excessively wide bodies. That's not too difficult to remedy when using the Supercaster or the Sorts Caster. If you end up with overhangs caused by beards, you can rub them off. Overhangs bump into each other and distort the faces in the delivery channel of the Thompson. It's a difficult problem, especially when they occur on virtually every character in the font.

So it was that when I undertook casting the font using my Supercaster 17 years ago, I "squeezed" nearly every character. I completed the caps and figures, "dressing" or "rubbing" every character as it was cast. The rubbing was further complicated by the fact that the original BB&S casting was to a shorter drive than the standard 50 thousandths drive common to Monotype. That meant part of the body itself (a very thin sliver) was included when these matrices were electrodeposited (made to a 50-thousandths drive). Thus, when I shortened set, I had that thin sliver overhanging on every letter cast. This factor confirms that Charles Broad's casting conformed to BB&S's original casting as to set widths.

This extra work of rubbing every character cooled my interest and after proofing three lines in 2001 (shown above), I shoved the half-filled typecase and the matrices into a dark corner, not to be retrieved until December 2016 when I accidentally discovered them.

Early this year I resolved to complete this half-finished case of type. I still was intrigued with the design and wanted to see the end-results of my "squeezing." It was sort-of a "clean-up-the-shop" situation. All the dressing to finish the font wore my fingers nearly to bleeding.

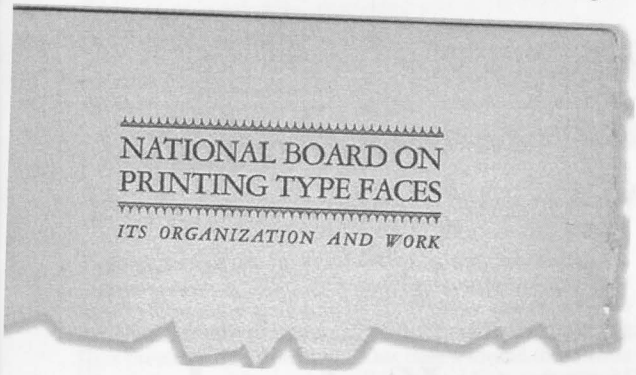
So here you have it—my rendering of 18-pt. BB&S Wedge Gothic with sets tightened up as my modern eye prefers. Now I must come up with some magnificent project to show it off more fully. Casting was completed February 14, 2017. pqrstuvwxyz

This page has been Monotype composed and letterpress printed direct from the type.

A Plot to Limit New Type Designs

We who collect things from printing shops often end up with piles of "stuff" which may or may not be relevant. But it's always a good idea to keep everything at least until you've had time to give it proper assessment. Jim Daggs came up with one recently which he forwarded to me saying, "found this in a box of ephemera and thought of you (gee thanks)."

National Board on Printing Type Faces, Its Organization and Work. That was the title of the neat eight



pages plus cover, very nicely printed. My immediate response was, "I can't believe, the government actually had a board that was going to assess the value of printing types?" It tweaked my curiosity.

The undated piece was published by the Advertising Typographers of America (ATA) sometime after 1930 and was spearheaded by ATA, along with three other trade organizations. So it wasn't a government imposition. Instead, it was spawned by members of the typography industry. The piece stated "The Board will consider such types as may be placed before it for judgment from time to time and will issue after each meeting a list of such new types which, in the opinion of the Board, are deserving, from the standpoint of beauty and legibility, of wide use."

Thereafter it listed 28 faces (or families) as being worthy of its recommendation. Wow! They had the guts (audacity) to try to tell the world which faces were of value. They specifically noted they had no intention of listing faces they judged not to have value (cowards!).

Well, it was a neat booklet and I heartily agree that the faces they listed were of merit. But the whole matter caused me to wonder what really was behind it all. So I went to the Internet and found a very good article by Paul Shaw, noted typographer and designer, who had the very same booklet and a lot more information on what this Board was all about. I heartily recommend that you access his article, for among other things, it includes dialogue between members in discussing various faces such as Broadway and Futura, and puts the whole matter into historic perspective.

<http://www.paulshawletterdesign.com/2014/06/more-on-the-national-board-on-printing-type-faces/>

Shaw explains that this was the period when importing type from Europe was gaining momentum, and U. S. type makers also were climbing aboard the "art deco" movement with a slew of designs such as Broadway, Chic, Ultra Bodoni, Modernique, Gallia, Modernistic, Nubian, and Cubist Bold. It was noted that "The Board is not particularly concerned with the economic problems involved . . . in stocking ... new types." Surely that *was* what it was all about.

For an advertising typographer to "put in" a new face involved significant financial investment. Nearly always, it involved stocking several sizes, and maybe also several sizes of alternates such as boldface or italic. It meant finding a place to put another stand of typecases at a minimum, and far greater expense if matrices were involved.

I put this into perspective by recalling my dealings in 1977-78 with Davis & Warde, typographers, in Pittsburgh. They had a room full of Monotypes, another room full of linecasters, and a much larger room full of type stands, makeup stones, proof presses, etc. It was an awesome site which occupied a full floor of a large industrial building on the shore of the Monongahela River in Pittsburgh. I acquired D&W's Monotype equipment. During my initial visit to the plant, Bill Darney, who had started with the firm as an apprentice many years before, gave me a tour of the place. After we had finished on the floor just mentioned, he took me upstairs to another floor in the building. It was as large as the "working" area below. It was filled with row after row after row of type stands full of perfectly usable type. These were the "slow moving" or "obsolete" faces the typographer had transferred to the room over several years.

"When someone calls for one of them, the compositor comes up here and looks it up in a big binder we have here, finds and sets the type he needs. We have to maintain them all because when a customer calls for something and we don't have it, he'll go somewhere else and that's can't happen very often before we end up losing the customer."

I would hate to have to put a price-tag on the contents of that huge room. Certainly it added greatly to the company's overhead. Its memory goes a long

way in helping understand why the ATA (Davis & Warde was a member) sought to rein in design fads which typographers always had to endure.

Deciding to use a new face today entails no more than looking it up on the Internet, buying and instantly downloading for a minimal cost—or going for a free pirated knock-off. Such ease of access and minimal expense would stun the boys of old. Today dozens and dozens of "new" designs come on the scene every month. Of course, the idea of restricting or judging the merit of any design is a completely obsolete concept. Perhaps that's a shame, because many new offerings have little or no "redeeming value."

The National Board of Printing Types had no apparent impact on typeface production and usage. As often has been said, regarding typefaces: *There never will be a consensus on what's good, what's bad, or otherwise.* So today and in future years, we will continue to endure the fumblings of would-be type designers and graphic artists who become obsessed with a new monstrosity. The only saving grace today is that these flash fads aren't likely to bankrupting anyone anymore. Type (digital) today is cheap. *So be it.*

Recommended Fonts

Caslon Family
Bookman or Oldstyle Antique
Century Family
Garamond and Garamont
(Oldstyle and Bold)
Granjon
Lutetia
Poliphius and Blado
Goudy (Oldstyle and Bold)
Italian Oldstyle
Kennerley (Oldstyle and Bold)
Cooper Family
Les Cochin
Nicholas Cochin
(Oldstyle and Bold)
Baskerville

Forum Title
Astree
Eve
Esteinne Old Face
Cloister (Oldstyle and Bold)
Goudy Modern and Open)
Bodoni
(Book, Regular, Bold and Ultra)
Scotch Roman
Bernhard (Roman, Cursive)
Narcissus
Futura
(Light, Medium and Bold)
Kabel (Light and Bold)
Bernhard Gothic
(Light, Medium and Bold)

On the "Feel" of Linotype Keyboards

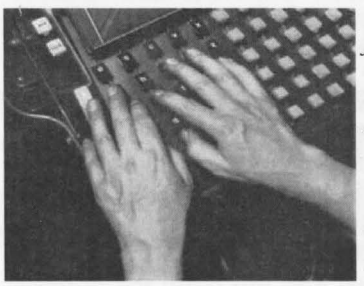
I received a call from Patrick J. Burns May 18, 2016. If you recall, Patrick is a retired Linotype machinist of many years' standing. He indicated his health was holding pretty well (age 76) but that he no longer is able to take in a five-hour day working on a Linotype. This testimony goes on the heels of a trip to Long Island to "un-rust" a beautiful Model 8 casting machine which he has serviced (at a Museum) for many years.

Patrick has first-person experience with Mergenthaler Linotype, having been trained at their factory. He indicated that in the early years, every machine made in the factory was assembled by one person. Yes, others worked on sub-assemblies, but one man did the final assembly. Literally thousands of them!

He also commented on the fact that the "feel" of an early Linotype keyboard was much the result of the individual doing the assembly and that literally no two machines had the very same "feel." That is why operators very often became attached to a particular machine and in many instances, labeled the machine "off limits" to anyone else in the shop.

Later on when Mergenthaler standardized more of the assembly process, this was no longer a factor, but definitely it was a factor before the "swing-out" keyboard was introduced. Assembly and adjustment were done by an individual with sometimes significantly varying results as to the performance of the keyboard.

Editor's footnote: Perhaps this helps one understand why in some newspaper (or other) shops one particular linecaster was considered the "property" of a single operator. No one else was allowed to use the machine and the operataor insisted that he/she coujld tell if anyone had touched the machine's keyboard. This feisty attitude was tolerated, most likely because generally this person was the fastest operator in the room, routinely "hanging the first elevator" (meaning his/her keyboarding was faster than the machine's ability to cast lines).



"Basic position for the hands over a Linotype keyboard"—from a Mergenthaler manual titled Linotype Keyboard Practice, *published around 1940.*

Vietnamese Type Restoration Effort

Continued from page 14)

my Ludlow Supersurfacer, modified by Dan Jones to be an effective device for milling type to proper height. The type did not mill cleanly, leaving burrs on the trailing edges—evidence that the metal was too soft (high lead content). I filed off the burrs and built this form for proofing.

My first proof was a great disappointment for the fine lines weren't distinct at all. Some had nearly disappeared. Several pieces remained clogged with Vaseline, giving a mottled appearance. But before declaring the project a total disaster, I referred back to the specimen book. To my surprise, many of the defects I was attributing to corrosion were apparent in the printed book. The cast letters show no evidence of mechanical engraving and thus, I can only conclude that the original casting was from hand-engraved matrices. Perhaps the foundry was using less-than-perfect electrodeposited mats made from originals imported from France? A great majority of other specimens show a French origin, which is not surprising since Vietnam was a French colony for over 100 years.

I will attempt further cleaning of the font and proceed with this printing. You shall judge my success or failure. I now ponder what to do with the type afterwards. I am not inclined to keep it because of its obvious imperfection, yet I hesitate to mix it with other type for re-melting, fearing its impurities will "poison my pot." Maybe I'll use it when I cast leads and slugs—I generally use softer Linotype metal for that.

Postscript: Life moves on and as fate would have it, my granddaughter Amy Loudin took a "cultural exchange" trip to Vietnam about five years ago. I gave her the address for the foundry. She looked it up while visiting Ho Chi Minh City (Saigon). The old building was gone and there now stands a multi-storied apartment complex. No more type from Vietnam.

Trailing advice: I have concluded never again to use Vaseline in an attempt to prevent corrosion of stored type. Pure motor oil with no additives would be a better choice. I think best of all is to proof the type and clean the ink off with standard press wash. That is likely to leave enough oil residue to save the type from corrosion.

Revisiting the Subject of Monotype Matrix Wear

Casting the 8-point Garamond 648 for the preceding article brought up complications which have caused me to write this piece on the issue of *wear on Matrices and Molds* used with the Monotype System. This subject has been covered in a previous *ATF Newsletter*. This time I intend to be more detailed and, perhaps, this will help budding operators of Monotype Composition Casters get a better understand what is going on.

Of all "bugaboos" a Caster operator confronts, perhaps the matter of *fins* appearing around the top of each cast letter is the most challenging and least understood of all difficulties encountered. All hinges on the simple fact that the Matrix must settle down on top of the Mold and form a complete seal between the individual Matrix and the Mold a split second before the Pump injects type metal into the Mold. If the seal is not complete, metal will escape on any or all four sides of the cast letter. Perhaps I could call the instance of metal escaping on all four sides *a halo*? A bad halo for sure.

Let's first delineate what is happening at the instance of casting, then we'll delve into how *wear* affects it all.

Several factors are involved:

THE MOLD—its height affects the situation. There are four types of Molds to be considered: American style with American height (.030″), English style with English height (.050″), English style manufactured to American (.030″) height, and American style milled down to English height (.050″). Each is different when it comes to the overall height of the Mold and therefore, changing the Mold may completely foul up what might have been a perfect Mold-Matrix union prior to changeover.

THE MATRICES—English Mats are taller than American Mats. Milled English Mats are the same height as American Mats. Adjustments need to be made whenever the *kind* of Matrix being used is changed.

THE BRIDGE—Two major components of the Bridge—the Centering Pin and the Matrix Case Carrying Frame—critically affect the positioning of the Matrix over the Mold just prior to casting. The Matrix Case Carrying Frame does the lion's share of positioning. The thickness of a single piece of paper represents the amount of variation allowable in adjustment of the Carrying Frame and if it is not correct, too much pressure will be put on the Matrix, causing Matrix wear. If it is too high it can prevent the Matrix Case from descending appropriately, to the point of preventing the Matrix from coming in contact with the Mold. The Centering Pin takes over just prior to the Matrix making contact with the Mold. It is responsible for the final positioning of the Matrix over the Mold and ultimately it presses down on the Matrix to hold it firmly in place during casting. If the Centering Pin is out of adjustment, there's a good chance it could exert too much pressure on the Matrix, resulting in wear or damage to matrices. Insufficient pressure will cause fins on the cast letters. Adjustments to the Matrix Case Carrying Frame and the Centering Pin affect each other. Both must be addressed to assure proper casting, and minimal wear on Matrices.

THE CENTERING PIN also is listed separately for there are two kinds. Stubby Centering Pins for English Matrices (which have rather shallow cone holes), and sharper American Centering Pins for American Matrices (which have deeper cone holes). The Centering Pin *absolutely must match the Matrix design*. Running the wrong Pin is guaranteed to result in sloppy alignment of cast characters, and abusive wear on the Matrices. It is critically important to use the proper Centering Pin and have it properly adjusted.

Both the English and American manuals address these issues but neither addresses issues of intermixing English and American equipment. That is, indeed, unfortunate, for there is much opportunity for splashes and potential damage to Matrices if one isn't keenly focused on this issue when a machine changeover is attempted.

We now have discussed *adjustment* as being one key component of the "fin" issue. Let's talk about other factors which also contribute to fins.

DIRTY MATRICES—crud in the Cone Holes and /or crud on the top of the Matrices. If there is not a tiny bit of play between the matrices and if you cannot cause a matrix to

project above other in the Die Case by pushing from the underside with a loose Centering Pin or other pointed object, crud between the mats, especially dried dirty oil, is fouling the system and the Mats must be cleaned. It's a time-consuming and dirty-fingers type of job, but sometimes it absolutely must be done. (Note that American Mats are designed to have such movement; English Mats do not have that same play.)

COLD MATRICES—I don't know the real reason for this but I know it happens. Cold mats tend to allow metal to adhere to their bearing surfaces. The longer you run the machine the warmer the mats get, and warm mats are less inclined to attract metal on their bearing surfaces. When I start up, I try to have the Matrix Case in the Bridge and the Pot in its up position so heat can radiate to the Mold and the Matrices. Allowing the machine to stand half an hour heated before casting begins will help minimize fins, frozen Nozzles, and mal-adjusted line lengths.

On Cleaning Matrices

How do you Clean the bearing surfaces of matrices when type metal has adhered to them? First off, *never* use metal objects that are harder than brass. Rubbing lightly with a 6-point lead will break away most of the adhering metal. What remains is best removed by brushing with a brass-bristled brush. A brush like those used for touching up your blue suede shoes is a great for this purpose. Then, of course, wipe all the mats with a clean rag.

METAL HOT/COLD—Over-heated metal is guaranteed to exacerbate the issue of "fins." Over-heated metal tends to flow too freely so it creeps between the Mold and Matrix and fins result. Cold metal tends to adhere to the face of the Matrices. That causes fins. If fins start appearing as a run continues, this may be evidence that you're not running enough water and the Mold is overheating.

And finally, *WEAR* on Matrices and Molds can cause fins. Unlike our linecaster friends who cannot effectively get rid of hairlines when their Mats are worn, a Monotype operator can compensate for wear and continue to use Mats many years after they have lost their like-new charm. Let's look at how to appraise Mold and Matrix wear.

First the Mold: A new or "good" Mold is perfectly flat on all the bearing surfaces around the Mold orifice. A Mold begins to demonstrate wear when the bearing surface becomes beat down revealing a square recess almost exactly the same size and shape as a Matrix. This is difficult to comprehend, but brass Matrices pounding millions of times against a tempered steel Mold will beat the steel Mold down and a concave area results. The reverse happens to Matrices. They tend to get beat down on the outer edges in direct relation to the top of the Mold. I describe such matrices as being "slightly rounded" when compared with the perfectly flat top surface of new Mats.

I had three casting projects lined up when I put a 9-point Mold on my machine recently. The first two project utilized very old Matrices and frankly, I did not look at the Mold or the Mats to appraise wear. These two projects proceeded with minimal "fin" problems. Then I switched to the 8-point Garamond 648 mats which look almost new —nice and flat on the surface and not beat down in any way. Casting brought fins on every letter cast. I fought it for 20 minutes before taking time out, removing the Bridge, and studying the Mold I had on the machine. Sure enough, it was a worn mold with the tell-tale recessed square around the orifice.

I removed the worn Mold and replaced it with one that was perfectly flat on top. That stopped the fin problem completely. In other words, the worn Matrices nested nicely with the worn Mold and that nesting minimized the fin problem. But the recessed Mold meant the newer, flatter matrices were held away from the surface of the Mold and thus fins were inevitable.

Rule of thumb? Worn mats demand worn Molds. Good, flat mats require new or near-new Molds. Mixing brings "fins" and there's no viable cure.

Enduring Explosions and Other Frustrations In The Typefoundry

My plan was simple. I'd go to the shop and begin casting 24 pt. Twentieth Century Bold Italic for this *Newsletter* and maybe get a good portion of the job done. Five hours later I headed out of the shop with a couple of blisters, a much-deflated ego, and absolutely no type to show for the effort.

First was the explosion. The Supercaster was set up for 72 point and that meant I needed to change the pump body and the piston (among other things). The pot was hot so I decided to skim the pot a trifle before removing the pump body. I grabbed a ladle by the Thompson—the one I had used two days earlier—and thoughtlessly scooped into the pot of molten metal. Not a good idea. Expletives deleted.

LESSON 1: *Pay attention to what you are doing.* There I stood with a T-shirt spattered with metal, a few stinging spots on my legs (I was wearing Bermuda shorts) a few spots on my face and eyeglasses, and two scorched fingers. Yes, the ladle had been used only recently but it was raining and the humidity had kicked up. I know (when I am thinking) that no tool should ever be shoved into a pot of molten type metal. You ease it in slowly to cook off any moisture that might be present. And of course, I wasn't properly dressed for the session.

So after tending to my burns and cleaning up the mess, I carefully installed the correct pump body. Now where's the piston? I had just used it a week ago. Where could it be? You might lose a screw, a makeup rule, or maybe a quoin key, but a piston? That's crazy!

LESSON 2: *Welcome to senior citizenry.* If you just had it in your hand, for sure it is now lost! After hunting half an hour and failing to find the piston, I threw up my hands, turned everything off and went away mad and frustrated.

Next day, with flashlight in hand, I found the piston on the floor way back halfway underneath our furnace. The piston had been knocked to the floor earlier that week when I was preoccupied with draining the circulating hot water system in the house, which had sprung a leak. I am still waiting on a plumber to fix the leak. But the good news is that I got the 24 point type cast—you will find a specimen on page 23. Still no furnace heat. I hope winter doesn't come early this year.

This page has been Monotype composed and letterpress printed direct from the type.

Compositype: The Success of a Failed Machine

By Dr. David M. MacMillan
Mineral Point, Wisconsin

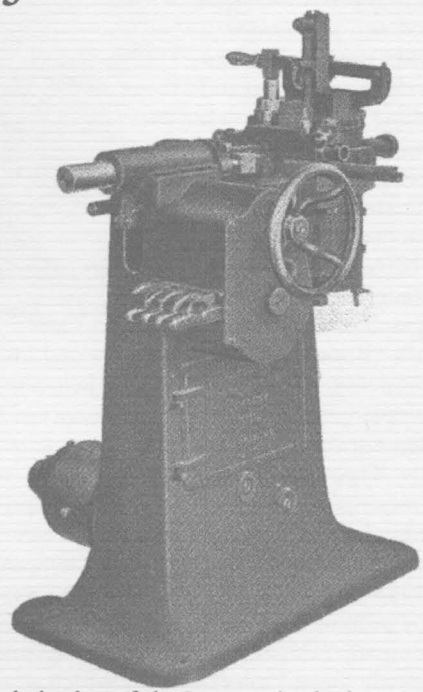
It is easy to overlook an unsuccessful machine, and by any standard commercial measure the Compositype was unsuccessful. It was produced for less than a decade. Few machines were sold, and none survive. Even while it was in production, some contemporary reviews spoke critically of it. Yet it deserves to be remembered and held in higher esteem.

It worked (not all inventions do). It pioneered the development of both the machines and the matrices that enabled independent typefounding in the 20th century and which remain at the center of typefounding today. Its developers had a vision of a different process for type design and type casting which resonates strongly with the "private typefounding" movement and the American Typecasting Fellowship.

Of the three who developed the Compositype, only one was a typefounder: John E. Hanrahan. He joined the Ryan type foundry in 1872 at the age of 13. Two years later he moved to the foundry's matrix making department. About this time the Ryan foundry burned down, so Hanrahan was able to develop as a matrix maker as the plant and his department rebuilt. As a type designer and engraver, he worked entirely as a patrix cutter in soft metal and became a strong proponent of the capabilities of electroformed matrices. By 1880 he had become superintendent of the entire foundry. In 1887, just prior to John Ryan's death, he became a stockholder and took a seat on the board. He stayed with the foundry after it became part of ATF in 1892, managing what became the ATF Baltimore foundry. He left ATF in 1899, well liked by all, to pursue a "related business."

John E. Hanrahan

The date of 1899 is generally quoted for the Compositype, because that's what John S. Thompson assumed in his 1904 *History of Composing Machines.* But things were not so simple. In 1899, Hanrahan, Frank Howarth Brown (who later worked on the Compositype), and a third inventor filed a patent for an elaborate type composing machine that would set foundry types, justify them, print a reproduction proof, and distribute the types. This machine was assigned to the American Planograph company, a firm controlled by James Ogilvie Clephane



(the early backer of the Linotype) which owned the rights to the later inventions of Charles T. Moore (as Rich Hopkins has said, "his ideas got Mergenthaler started.") This machine came to nothing. But in 1901, Hanrahan and Brown (and maybe their third partner, engineer George A. Boyden) formed the National Compositype Company. We do not know what they were working on in 1901. Given the name, however, it is reasonable to assume that it was a composing machine. But by 1902 they were working instead on a "type making" machine, and in 1903 the basic patent for their "sorts caster" was filed. Interestingly, none of the three principals ever called it the "Compositype." It was the "Automatic Type Machine," manufactured by the National Compositype Company.

they were working instead on a "type making" machine

A type casting machine is a complicated precision product. Developing a new one from scratch, especially one as novel as this, is ambitious. Hanrahan, Brown and Boyden created what would be called today a high-tech startup company. The patent for the caster was filed in January 1903, but it was not until 1904 that the machine was offered for sale, and serious promotion didn't begin until 1905.

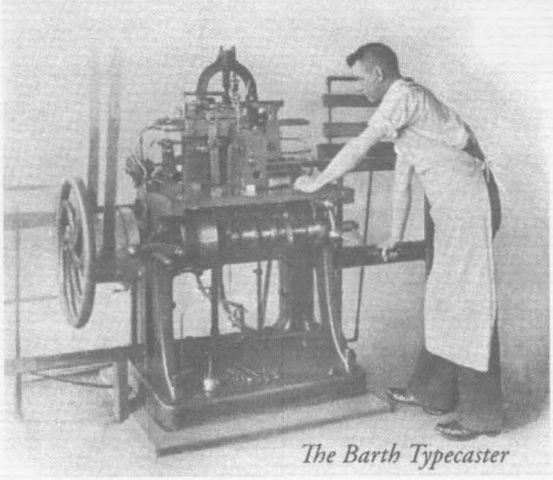
By that time they were on their third model of the machine. If you've ever been involved as a principal in a high-tech startup, you can look at the bare numbers and see behind them the trials and frustrations, great hopes and lost sleep, of creating a new kind of machine. Their problems were just starting.

Frank H. Brown

In November 1903, the same month that the first photograph of what was labeled the "Brown Compositype" appeared, the Lanston Monotype Machine Company began offering a sorts casting attachment for the Monotype caster. This was not the equipment we have come to know with the Type-&-Rule Caster, but an early version using rectangular matrices and an extra spring on the pump. It shows every sign of having been rushed to market to preempt the threat of the Compositype.

In 1905 the "Automatic Type Machine," was being strongly promoted by the United Printing Machinery Company (UPMC) as sole selling agents. This was a newly formed sales company which employed a well-known figure: Henry Lewis Bullen. Bullen also sat on the board of the Compositype company. Then, in September 1905, Bullen embezzled UPMC and fled. Pursued by Pinkerton detectives, he was finally arrested with a ticket to Honolulu in his pocket (Hawaii was not then a state). He pled guilty and was sentenced to ten years in jail (reduced to two for good behavior). This episode can't have helped.

in September 1905, Bullen embezzled UPMC



The Barth Typecaster

In September 1906 Frank Howarth Brown died at the age of 37 of tuberculosis (the same disease that took Ottmar Mergenthaler at age 45). Two days after Christmas 1906, an early backer of the company, Baltimore banker Edward H. Thomson (no relation to John S. Thompson) died of "acute indigestion."

By 1907, the National Compositype Company was overdue on loans to cover payroll and proposed to reorganize itself into the Baltimore Compositype Company, with an emphasis upon the value of its matrix library. Only 96 machines were in service, but they had spent over $250,000. They also dropped UPMC (which was by then in trouble) and began direct sales. But 1907 also saw introduction of two more competitors: The Thompson Type Caster and the Nuernberger-Rettig. By 1909 an article in *The Inland Printer* reported that Compositype's "factory in Baltimore has not been in operation for the past few years." In 1911, its equipment was sold at auction for the receiver. The matrix library does not seem to have been included in the auction; it was acquired by the Nuernberger-Rettig's company in 1914.

Hanrahan continued with a new invention in 1910/1913: an attachment to the Linotype which allowed it to cast display type from flat mats at the same time it was casting slugline composition. This was promoted as the "Ad-Atype," but it didn't catch on. He died in 1919 at the young age of 59.

So much for the failure. Where is the success?

First, it is necessary to take stock of the state of typecasting machinery at the turn of the 20th century. The pivotal type caster had been successful since its introduction by Bruce in the 1840s. But it produced type which was not finished and which required significant additional work, both unskilled (jet breaking, rubbing) and skilled (dressing). Various "automatic" casters which produced finished type had been developed. In particular, the Foucher of 1878 in France became the first really successful machine of this kind. Its American derivative, the Barth, became the mainstay of heavy production at ATF. (A Barth is, in simplest terms, a Foucher plus a choker valve, built to impressively robust standards.)

"Every Printer His Own Typefounder."

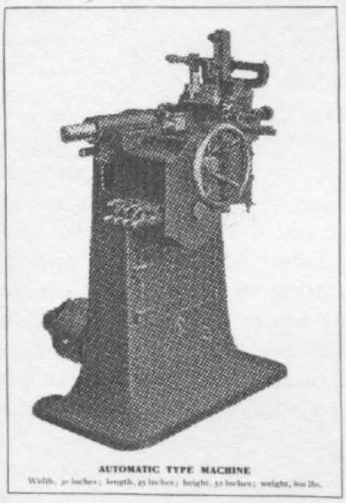
But both the pivotals and the early "automatics" were machines requiring skilled operation which were intended for large-scale commercial type foundries. There were no machines which were suitable for small shop use by untrained operators which also produced *finished type.*

Another Revolution!

Every Printer His Own Typefounder

AUTOMATIC TYPE MACHINE
AND SORT CASTER

A MACHINE at a moderate price, requiring no skill not possessed by an average compositor, that makes the printer *absolutely* independent of the typefounder, and reduces the cost of all type, body or job, quads and spaces, borders, etc., to under *15 cents* per pound, including cost of metal.



AUTOMATIC TYPE MACHINE

Width, 30 inches; length, 45 inches; height, 52 inches; weight, 800 lbs.

A machine embodying mechanical principles not found in any other typecasting machine, and on which *generic* patents have been allowed. A perfected machine, the result of four years of constant and expensive labor and tests, and now *guaranteed* to make at one operation finished type and spaces, and quads, with *accuracy in body, height, set and line equal to that of the best product of the typefoundries.*

With this machine there has been developed a method of matrix making which reduces the cost of matrices to the printer to one-tenth of the actual cost of matrices to the typefounder. There are fonts of matrices now ready for over 250 sizes and styles of type. Additions are made every day. There is no type face from 6 to 36 point, inclusive, for which matrices can not be furnished. *A set or font of matrices will cost less than a decent sized font of type, and from these the printer can cast thousands of pounds,* if he desires to do so. Those who prefer to do so, *can rent fonts of matrices at a small daily rental.*

Inland Printer, March 1905

The Compositype was not intended to be just another typefounder's casting machine. Their first *Inland Printer* ad of 1905 announced their original intention: "Every Printer His Own Typefounder." It claimed the "policy determined upon is to put this great instrument of economy and convenience in the hands of the printers." This marketing decision had technical implications.

First, because printers are not trained typefounders, it meant that the machine had to be simple enough to be run by an untrained operator who could not be expected to do things such as check trial casts for set and alignment. The operator had to be an unskilled laborer, as a printer could not afford to employ a full-time skilled casterman.

Second, a professional typefounder could be expected to have many machines and could economically devote individual machines to a particular size (or a small range of sizes) of type. The Barth, for example, was made in at least twelve sizes. Each could accomodate a range of mold sizes and styles, but it was ATF's policy to equip each machine permanently with one mold. This would never do for the printer purchasing a single machine. So the Compositype had to be designed to produce type over a broader range of sizes than other "automatic" casters.

These requirements are familiar to the practical typefounder today, but they were new then. Compositype paved the way first for the sorts casting equipments added to the Monotype and then for the Thompson and the Nuernberger-Rettig.

So the first success of the Compositype was that it worked at all. It was a new machine, intended for a new market, and constrained by new and demanding design requirements which had not before been encountered by makers of typecasting machinery. That it went from conception to production in about three years is impressive.

It second success was the development of the technology to mass-produce electroformed matrices, especially in display sizes. The Compositype company created the first process for this. In turn, electroformed mats became the basis for independent typefounding in the 20th century.

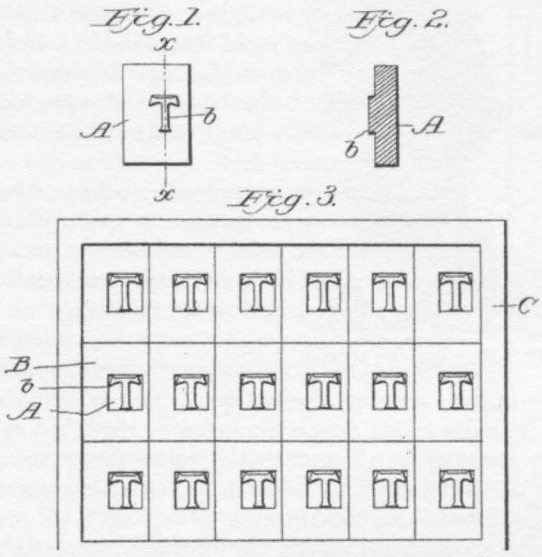
Its second success was the development of the technology to mass-produce electroformed matrices

Conventional histories of type have ignored this. The role of patrix engraving (cutting "pattern types" in soft metal, first by hand and then by pantographic engraving machine) has been systematically suppressed in the histories of type written in America and England. (In part this was no doubt because the technology could also be used for pirating type. But it may also have been because most histories were written or sponsored by companies who used steel punches (Mergenthaler Linotype, English Monotype) or directly engraved matrices (ATF).

Outside of America and England, by way of contrast, patrix cutting has always been one of the standard methods of making type. It is becoming increasingly clear that after 1845 patrix engraving and matrix electroforming was a common method in all type body sizes, and was in fact the dominant method of producing display types. Hanrahan, at the Ryan foundry, specialized in this.

Traditional typefounders need only one matrix for each sort. They sell type, not matrices. Machine makers such as Compositype must mass produce matrices for their customers. They sell matrices, not type.

Hanrahan had an early experience with this, because he is reported to have made the first matrices for Ottmar



Patent for a Master-Block of Patrices for mass-producing electroformed matrices

Mergenthaler. As we know from Carl Schlesinger's research, these would have been the electroformed matrices used in the first six months of the use of the "Blower" Linotype in 1886. Linotype soon changed to using machine-cut steel punches to make its matrices, but until much later this technology was only capable of text sizes (the Model 1 Linotype, not superseded until 1902, could only go up to 11 point). Punched matrices in display sizes did not appear until much later.

The Compositype required display sizes up to 36 point in 1903. Hanrahan accomplished this with specialized fixtures and processes for mass-producing electroformed matrices from multiple patrices. Seven of the sixteen Compositype patents are for matrix making.

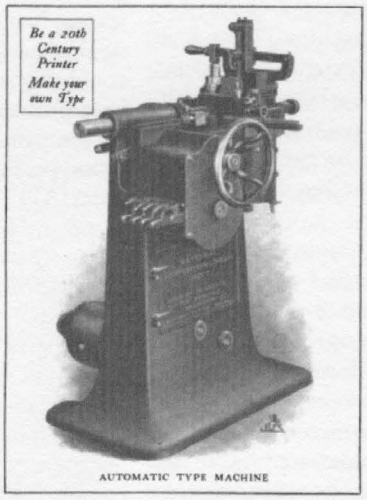
Two of these patents are worth a special look. US patent 854,460 (filed 1904) claims the provision of gaging surfaces (matrix edges, in practice) for establishing head bearing and side bearing. Patent 845,684 (filed 1905) goes further and claims the very idea of head (tail, actually) and side bearing: matrices with "the character... being situated... at the same predetermined measurement from one vertical edge and the bottom edge."

On the one hand, these two patents were probably unenforceable—every matrix justifier since Gutenberg would have objected to them. On the other hand, allowing for an excess of enthusiasm, they emphasize the degree to which the Compositype was intended to be used not by typefounders, but by printers who would be unwilling to make fiddly adjustments for alignment.

So successful was Compositype in its type design and matrix making that after the company was in receivership there was a fight over its matrix library. Nuernberger-Rettig (Universal) bought the main matrix library, masters, and official rights from the receiver. Thompson bought the second matrix library. Both, for a time, claimed to have "the" Compositype library available to their customers.

The third success of the machine was, at the time, probably the cause of its failure: it was sold directly to printers. Indeed, it was offered on more attractive terms to any customer who would agree in writing only to use the type cast on it, not to sell that type. The reason for the failure here is perhaps obvious. Printing and typecasting are very different occupations, and in reality few printers want to be typecasters. But this idea, "Every Printer His Own Typefounder," generated two successes which cannot have been anticipated by Hanrahan, Brown and Boyden. First, the idea caught on, if only for a while. This gave us three machines which became the mainstays of independent typefounding: the Thompson Type-Caster, the Nuernberger-Rettig, and the Monotype Type-&-Rule caster. Second, while most printers

FAME OF THE EARLY PRINTERS



AUTOMATIC TYPE MACHINE

IN the beginning of typography the fame of the printer was established by the design of the type he made and used. In our era Morris successfully revived the ancient practice of designing, making, and using exclusive type faces; and he became famous.

The type founders' opposing interests and the high cost of punches and matrices have discouraged that individuality which alone can make a printer truly famous and give his works a unique value.

Now comes the National Compositype Company with its Automatic Type Machine, sold at a moderate price, to cast type at an hitherto unheard-of low price, and (better) furnish matrices of exclusive type faces designed and owned exclusively by the printer at prices less than ten per cent of the *cost* of a matrix to the type founder.

The twentieth century printer, like the fifteenth century printer, will cast all his own type. If he desires fame, he will design his own type.

The Printing Art, August 1905

don't want to be typecasters, some do. In the late 20th century, those printers who wanted all of the advantages of in-house typecasting promised by the Compositype banded together to form the American Typecasting Fellowship.

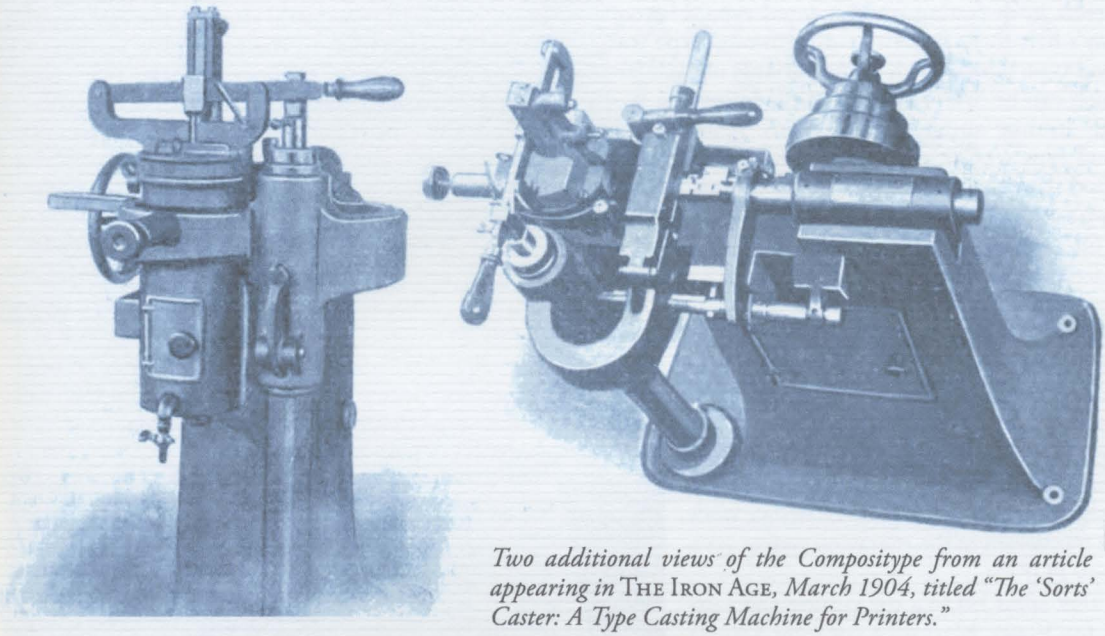
The final point of success for the machine is, I will admit, stretching the argument a little. But it's worth thinking about. The Compositype was conceived at the height of the influence of William Morris on the private press movement in Europe and America. Morris designed his own types, had them made and cast for him, and used them to print his own books. His influence transformed type and design in the 1890s and early 20th century, but few printers could follow his complete path from typeface design to ink on the page. The Compositype offered this path.

This 1905 advertisement in *The Printing Art,* made the connection explicit (see previous page).

We'll never know if this was really what Hanrahan intended, or if this was nothing more than the work of an ingenious copywriter (perhaps even Bullen, a month before he cleaned out the UPMC bank account and skipped town). Nor is there any record that any printer actually designed a face and had Compositype make it. But later printers such as Jim Rimmer and Paul Hayden Duensing did design and make their own types, and cast them on machines such as the Thompson which owe their origins to the pioneering efforts of the Compositype.

The National Compositype Company failed completely. But what Hanrahan and his colleagues were trying to do looks a lot like what we in ATF are doing today. If they hadn't tried, if they hadn't broken the first trails into typecasting by printers, mass-produced electroformed matrices, and type designed by its users, we wouldn't be able to adapt the motto from their August 1905 ad:

Be a 21st century printer.
Make your own type.



Two additional views of the Compositype from an article appearing in The Iron Age, *March 1904, titled "The 'Sorts' Caster: A Type Casting Machine for Printers."*

Note: A more detailed study of the Compositype, including all references and sources omitted here because of lack of space, will be published on the author's website one month after the release of this ATF Newsletter. See:

<http://www.CircuitousRoot.com/artifice/letters/press/noncomptype/casters/compositype/index.html>

Principal references include the article "The Sorts Caster: A Type Casting Machine for Printers" from *The Iron Age* (March 1904), contemporary trade notices and advertisements from *The Inland Printer* and *The Printing Art,* William Loy's article on Hanrahan in his series "Designers and Engravers of Type" in *The Inland Printer* (Oct. 1899), Mallinson's 1976 doctoral dissertation at Columbia on Henry Lewis Bullen, and the Compositype patents. Additionally, this article would not have been possible without the 21st century ability to search digitally through "boring" references such as old city directories, compilations of legislative acts, and specialist journals of the financial industry.

A Radical New Way to Make Matrices

By Gregory Walters
Piqua, Ohio

A group of typecasters in the Netherlands has completed a project to produce a new two-color typeface in hot metal. The project was undertaken by Stichting Lettergieten 1983 (a Monotype museum in The Netherlands, the name translating to "Museum of Lettercasting 1983") and Novo Typo (a design studio in Amsterdam). The aim of Foundation Stichting Lettergieten 1983 is to maintain and demonstrate the skills of casting of hot-metal types.

The group acquired in 1983 the rental library of the Monotype company in Amsterdam, as well a huge amount of composition matrices. Four Monotype casters are available in a museum setting. Volunteers run the museum and produce type for letterpress printers and bookbinders. Mark van Wageningen, proprietor of Novo Typo, has a particular interest in designing multi-colored type. His company's first foray into three-dimensional type was a wood type project with many variants of each letter which can be overprinted in colors to make a seemingly infinite number of variations. A print of this wood type was displayed last year at the Hamilton Wood Type Museum. You can see more of Novo Typo's designs at: <http://www.novotypo.nl/>

Of particular interest here is a project Mark has undertaken in designing a two-color face to be cast in metal. Ronald Steur, chairman of Stichting Lettergieten 1983, saw the project through from creation of mats to production of the type. Efforts begin over 10 years ago working with a company in Hungary which uses computer-assisted engraving equipment for making embossing dies. Working out the technical details of the Monotype matrix was difficult, but finally mastered. Details of the design work was transferred to the engraving system via a simple PDF file.

That effort led to a test cutting and casting five letters. Mats were cut from a single piece of brass. Each letter carried an outline of the matrix dimensions with final cutting to matrix dimensions being done on a separate computer-driven device. Success of this test allowed them to address the entire font as a large single sheet of brass. Engraving took over 20 hours with the system interchanging six different cutting tools automatically. Cutting the sheet apart was done on a separate computer-assisted system and took several additional hours. The finished mats fit the Supercaster perfectly. Cost for engraving and finishing into individual mats is calculated in excess of $20.00 per matrix.

Cutting this many matrices from a single sheet of brass presented technical challenges in accomplishing proper depth of drive, position of the image, tapered beards, and precise dimensions and grooves of the finished matrices, but the computer-driven systems met these demands without flaw.

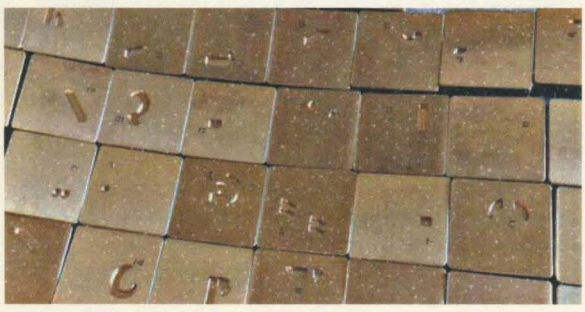
The font has been named *Ziza* and was cast in 36 point. The proof on the next page shows some variation in registration which could be due to many different factors. Any flaw in the type, a bubble on the side or a flake of type metal stuck to the side, would cause mis-registration in the print. Any changes to mold temperature between casting the two colors would also cause a tiny change in width of the type.

Once the type is perfect, the presswork has to be equally perfect. Ronald Steur reports that there were some problems to be dealt with, but overall the project was a complete success.

The final result, as seen in a test proof (next page) shows two personalities to the face. The text set in lowercase is full of movement. The white line between colors is often curved, and the colors seem to weave back and forth. The capitals are more stately and reminiscent of great art deco lettering. Stichting Lettergieten 1983 will offer the type to European printers, but does not have molds for US/UK body or height.

Shown here are ten English-style matrices (five two-color letters) along with test castings of those matrices. With success of this test, the project moved forward with the ultimate goal of a single 36-point font made up of over 200 matrices.

A huge brass sheet engraved with the various letter components is shown in the background. Overlaying is a box containing all matrices in finished form, cut from the master engraved sheet. To its right is a first proof of the typecast characters revealing various deficiencies in alignment (see text). To the left is Ronald Steur of Stichting Lettergieten 1983 at the Supercaster. Below are finished mats laid out.



A Very Detailed Study of Historic Granjon Ornaments

It's no secret that this printer has a real affection for printers flowers. I rarely turn on a casting machine without taking a side trip to cast more ornament. And when I assemble them into beautiful montages? That's one of the greatest advantages of having your own typecasting machine—not running out of type halfway through finishing the design!

Playing with printers ornaments brings a person to start pondering where they all originated. Probably one of the best all-around displays of ornaments which also reveals some of their backgrounds is Richard J. Hoffman's *When A Printer Plays,* self-published in 1987 at Van Nuys, California. Therein he grabs hold of some Granjon Arabesque and gives them a great whirl and a tinge of background information. The book piqued my curiosity about designing with ornaments, and likewise piqued my curiosity about history of the ornaments themselves.

Book Review

By the way, Hoffman (1912-1989), was an early participant in our American Typecasting Fellowship, an inspiring teacher, and subject of a wonderful book titled *Richard J. Hoffman: Printer and Teacher of Printing,* (Los Angeles: California State University, 1978) edited by Ethan B. Lipton, one of Hoffman's students and a present associate in our Fellowship.

So when I heard of *Granjon's Flowers* (New Castle, Delaware: Oak Knoll Books,, 2016) I just had to have a copy. Nearly all who are type nuts are kind of "over the edge," *but you ain't seen nothing yet!* With this book we meet the absolute "over the edge" person in Hendrick D. L. Vervliet, the author. If you're looking for a "pretty" book with lots of flowers, this isn't. Sure it's well-produced, but this guy has really grabbed hold of Robert Granjon (1530-1590) and chased down just about everything one would ever want to know about the man's creative work with ornaments. The book provides just a single specimen of each ornament. (Granjon, by the way, was a punchcutter, type designer and occasionally a printer.)

Vervliet has chased down no fewer than 103 ornaments which he has painstakingly traced to Granjon and his contemporaries by providing "first-seen" dates, a same-size specimen, and a listing of early books utilizing the ornaments. He starts with a nonpareil (6-point) flower in 1544 and proceeds to a Canon (48-point) ornament done in 1577 by a "De Tournes" punchcutter labeled "D." The book shows evidence of exhaustive research on the part of Vervliet, and likely provides more information than you ever thought possible on such a narrow subject.

By the way, for those of us who are just beginners in this realm, Vervliet provides a hint as to proper nomenclature in identifying ornaments. "Printer's flowers," or "flowers," are technical terms referring to decorative type-ornaments. They include non-flowering type-ornaments such as acorns, leaves or strapwork, but exclude non-decorative designs such as asterisks, rules, braces, and astronomical signs. Others prefer the term"fleurons." A more specific term, "arabesque," is an ornamental design consisting of intertwined flowing lines, originally found in Arabic or Moorish decoration. Further, ornaments can be broadly classified as "single" or "combinable." Singles, of course, stand alone, even though there's no stopping assembling a whole row of them! "Combinables" are two or more ornaments designed specifically to work together. Granjon did several combinables. One set consists of seven different elements.

My most amazing realization is that so very many of these historic ornaments still are available and that Monotype ornament books (both English and American) are filled with excellent renderings of these very historic ornaments. Information in the Vervliet book can be most helpful. Only recently, the book revealed that three elements, which were shown on different pages in the American Lanston specimen book, actually belonged together. You will see them "in combination" on the cover of this *Newsletter.*

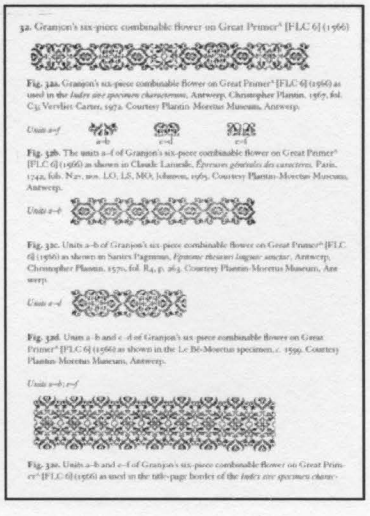

32. Granjon's six-piece combinable flower on Great Primer [FLC 6] (1566)

Fig. 32a. Granjon's six-piece combinable flower on Great Primer [FLC 6] (1566) as used in the *Index aire specimen characterum,* Antwerp, Christopher Plantin, 1567, fol. C3; Vervliet Carter, 1972. Courtesy Plantin-Moretus Museum, Antwerp.

Units a–f a–b c–d e–f

Fig. 32b. The units a–f of Granjon's six-piece combinable flower on Great Primer [FLC 6] (1566) as shown in Claude Lamesle, *Épreuves générales des caractères,* Paris, 1742, fols. N2v, 201. LO, LS, MO, Johnson, 1965. Courtesy Plantin-Moretus Museum, Antwerp.

Units a–b

Fig. 32c. Units a–b of Granjon's six-piece combinable flower on Great Primer [FLC 6] (1566) as shown in Sanctes Pagninus, *Epitome thesauri linguae sanctae,* Antwerp, Christopher Plantin, 1570, fol. R4, p. 263. Courtesy Plantin-Moretus Museum, Antwerp.

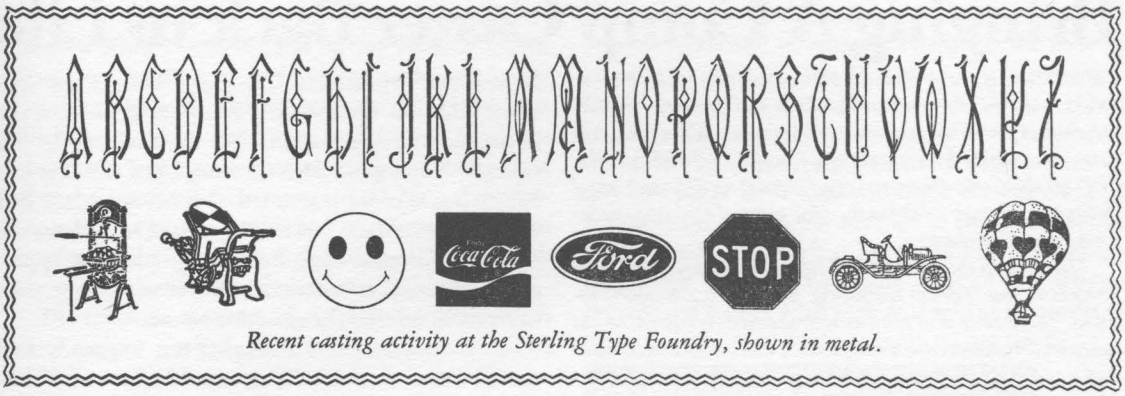
Units a–d

Fig. 32d. Units a–b and c–d of Granjon's six-piece combinable flower on Great Primer [FLC 6] (1566) as shown in the Le Bé-Moretus specimen, *c.* 1599. Courtesy Plantin-Moretus Museum, Antwerp.

Units a–b, c–f

Fig. 32e. Units a–b and c–f of Granjon's six-piece combinable flower on Great Primer [FLC 6] (1566) as used in the title-page border of the *Index aire specimen charac-*

This is the fullest extent of specimen showings in the book. This page shows some of the "combinables" raced to Granjon. Most ornaments seen here are still available today.



Recent casting activity at the Sterling Type Foundry, shown in metal.

Sterling Type Foundry Adds New Equipment

BY BOB MAGILL, *Proprietor*

The last several months have seen some important changes at Sterilng Type Foundry, formerly operated by Dave Churchman of Indianapolis, now removed and set up and operated by me at Union, Missouri. I now have two additional casters which will allow greater casting capabilities.

Previously a Monotype Thompson Sorts Caster with a .050″ mold (acquired from Roy Rice in 2004) was the sole machine at my shop (then known as the Monumental Type Foundry). This machine has been used to cast type from Monotype flat and English square mats. In early 2017 a second Thompson with a .043″ mold and an English Supercaster were added.

The second Thompson (acquired from Dave Peat in 2014 and previously owned by Kelsey) required a change from an electric to a gas Pot to match facilities at the foundry. With this modification made, machine oiled and the metal hot, it was time for casting trials. The first turn of the hand wheel revealed years of neglect and decades of idleness were not going away without a fight—the Choker Valve was frozen.

The Pot had to be drained to get at the Choker. Removal of the Nozzle revealed an expected buildup of dross, but the Choker valve was unexpectedly loose—it had broken in half with the back portion firmly stuck in the housing.

All gas and Partlow connections had to be disconnected and Choker Lever Rocker Arm removed to get to the Pot Body. The frozen Shaft would need to be drilled out. Surprisingly, removal of the Shaft was remarkably uneventful and the Pot was reassembled with a new Choker Valve installed. Another test was undertaken and this time proved successful. Although adjustments are still needed to remove fins and produce a more solid type body, this machine should be fully operational very soon. It will be used to cast original Thompson mats and Linotype ornaments, all made with a .043″ drive.

The Supercaster belonged to Dave Churchman and was moved to my shop after his death in 2016. It has been cleaned, oiled and examined to determine what is needed to make it operational. The motor, which does not appear easily replaced, is 220, three-phase. An appropriate phase converter has been acquired to change the foundry's available single phase to drive the three-phase motor. A new 220 electric line has been installed for that purpose.

For unknown reasons water lines in the base of the machine were disconnected. The water flow path has been remapped and will be reconnected soon. It is hoped that first test casts can be done in September.

The Supercaster came with molds and inserts for standard sizes from 14 thru 72 point, plus molds and accessories to cast strip material. A disappointment is that though half the fonts that came with the machine were Giant mats, no mat holder (and components) needed to cast them has been found.

The foundry has not been idle during this period and continues to cast type for others. The last two faces cast are 18 pt. ENGRAVERS ROMAN and 36 & 48 pt. ELITE INITIALS. I intend to reintroduce borders and ornaments using mats found in Sterling Type Foundry holdings. A project has been initiated to cast theme-specific ornaments, put up as "handy boxes." The first set was a group of OLD PRINTING PRESSES. Casting is complete for the second set, ANTIQUE AUTOS. It will be available later this year.

Sterling Type Foundry was begun in 1920 by Oliver McLaughlin. Soon thereafter he sold the business to Frank Sassaman who operated at Charlotte, Michigan, until his death in 1982. He specialized in casting ornaments, commerical logotypes, and other "small cuts." After Sassaman's death, David Churchman secured the foundry's assets and moved the plant to Indianapolis, Indiana. Upon Dave's death last year, Bob Magill acquired the assets and has relocated them at his shop in Union, Missouri.

This page has been Monotype composed and letterpress printed direct from the type.

Bringing A Comp Caster Back to Life

Editor's note: If you've read any previous articles in this NEWSLETTER, *you've become aware that Dan Jones is a very methodical, studied person when it comes to Monotypes. When Mike Anderson and I visited a few years ago, I jumped right in and said, "let's get this Comp Caster running!" And so we did, with lots of difficulties. Though we did make a few pieces of type, we were far from being in production.*

Dan figured the machine had lots of hidden problems, so he resolved to tear it down completely, and give it a complete rebuild. That had to wait until he retired and now retired, he has taken on the project with a vengeance. I will admit I never have had a caster torn down as far as he has gone wih this machine. His suspicions about hidden problems turned out to be valid.

He started by taking pictures and writing copius notes. What he says is very good information for anyone considering a similar project. Dan admits that re-assembly got ahead of note writing and thus, this piece ends before it should. That's why we are able to show before-and-after photos. He is still working on adjustments, so the caster still doesn't work perfectly. Dan promises a follow-up to complete the case study, so read on and "stay tuned."

BY DAN JONES

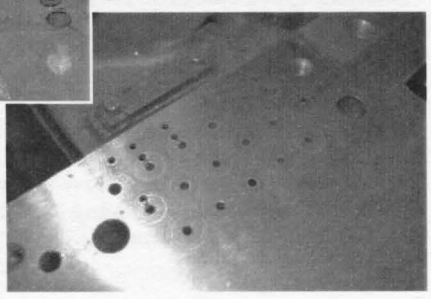
Pigment Press, Newmarket, Ontario, Canada

I knew nothing about the Monotype Composition Machine or its operation; I originally thought a Ludlow would be the perfect casting machine and wrote to Paul Duensing in 1991 about this, expressing my interest in casting single type bodies with a modified Ludlow machine (not really feasible was his reply, he suggested looking up the ATF and Rich Hopkins).

Then I saw Rich's Supercaster at Monotype University #1. This machine (I now have one) was my image of casting perfection for a long time. My casting career has come full circle and I am now able to cast Ludlow mats on the Supercaster with a special Monotype factory-built mould.

In 1982, Bill Morgan of Lunar Caustic Press in Toronto had bought a Composition Caster from the landlord of a building that housed the defunct MonoLino Typesetting Company. He got the machine, but not the moulds, a keyboard but not the keybanks and key buttons. No keyboard paper, no wedges. Not a good start for him. I saw it in the late 1990's but was not interested. Bill Morgan then had it stored at a friend's place, Michael Desjardins, the owner of Ground Zero Packaging, who had apparently expressed an interest, however when they went under, Bill offered the machine to me.

At left is the top surface of the caster (Pin Rack area) upon being opened up, revealing much corrosion and plenty of tough, baked-on residue.



The same area now cleaned up and returned to like-new condition.

Too complicated I thought, but I already had a collection of composition moulds from the University of Toronto, which also fit on my Supercaster with an adaptor plate. Bill offered some spare parts too. There was even a space in my garage at the time. Moving it there was a story within itself.

Aborted Revival

The machine sat in my shop for years; an attempted resuscitation by Mike Anderson and Rich Hopkins during a Canadian visit several years ago was a good start, but showed how much work was left to do. I started collecting books and spare parts. It was an English machine, and John Eickhoff in Bristol, England, was a good advisor for blth my Supercaster and the comp machine. In 2003, my father was planning a move from England back to Canada.

In England dad met and married my Canadian-born, English-raised mother. Dad was coming home again and he contracted a shipping container. He confided to me that there was space left over and I arranged with John Eickhoff to take to my father keyboard stuff, matcases, Vari-drive motors and much more. John was always a persistent scrounger; some of the stuff came from HMSO, Her Majesty's Stationary Office. It was an amazing and efficient way of getting equipment to me.

Still, the machine sat idle until I retired in 2016, Studying the comp machine I discovered bent parts, seized pistons and lots of goop. John Cornelisse of Holland came through with advice and spare parts.

Documenting With Camera

I got a digital camera and recorded my strip-down of all components that looked dirty and seized. (A tip from Gerry Drayton, former teacher at the English Monotype School, helped me to understand the comp mechanism better. All critical movements in the comp and the Supercaster have springs to allow some over-travel; they must be adjusted to do this or parts will bend and crash. Poor adjustment was why my machine had bent parts. Drayton was at the Rindge ATF meeting in 2000.)

Certainly one should take digital pictures of your

progress. I didn't take enough. More is better. I purchased a 30mm close-up lens for my camera. I used plastic sandwich bags to hold the various parts as they were removed, with numbered cards in the bags which appeared in the photos. I advise you to go one further and look up any special fasteners as they come off of the machine. Many specialized Monotype fasteners have a number stamped on them which can be referenced back to an alpha-numeric Parts Book reference; I should have done more of this.

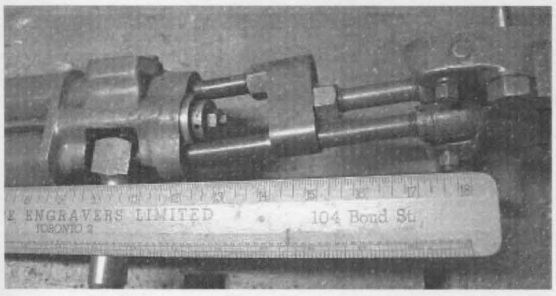
The machine runs on what I call "air logic" with many copper air lines. I tried to replace damaged air lines with aluminum tubing. Air lines will have flared and/or threaded fittings, depending on application, both difficult to copy. I ended getting copper spares from Duncan Avery in England.

1. Air Pistons

All the air pistons were seized by dried lubricating oil; I cleaned them all, sometimes loosening the oil by warming the assembly on the top of a wood stove, a technique I use to loosen seized Monotype moulds too. Not too hot is always the guide. Monotype has an interesting system. There are no O-rings to seal the pistons; they run with close tolerances in machined and honed bores. However, the Air Pins used to locate the position of the mat case in the machine uses O-rings to cushion their downward travel, these are standard sizes. Fortunately, a local supplier had nice durable Viton seals.

Get some standard O-rings for the Air Tower air feed assembly while you are at it—part number 6G2. The air logic assemblies, like the Unit Shift device shown in plate 60 of the Parts Book, seem to hang off of the side of the caster in any available space with a spaghetti path of copper air lines to it. My machine also has a quadding function, and a repeat function that casts a specified character until it fills the line.

A typical air piston assembly has a mounting plate with threaded copper lines behind it, which I recommend not to remove. However, the moving parts are mounted onto this plate in a separate assembly and this is where the frozen pistons are. Lines leaving these connections typically have easy-to-remove flared connections. Some 600 or 800 grit wet-dry sandpaper lubricated with light oil will clean up any deposits on the pistons and in the piston bores. I mass produced the cleaning operation by making a sandpaper "flapper", wrapping some of this sandpaper around a stick with tape and spinning it with an electric drill, stopping frequently to test the fit.



These bent rods are evidence of horrible handling in transit and storage. Dan opted to replace the part rather than trying to further disassemble and straighten them out.

2. Damaged Parts

There were damaged parts, amazingly, the ½-inch diameter bars that were part of the 26E Jaw Tongs Spring Box were significantly bent, the d13C Matrix Jaw Rack Locking Bar was bent and the 14B Normal wedge Locking Pin was bent. My investigation led to a little fastener, b14B6, that was not fully screwed into the slot of the Rack Locking Bar. This allowed the Bar to rotate and start a series of concerns that ultimately damaged many stronger parts.

3. Taper Pins

Large assemblies of the machine are positioned with taper pins as well as by fasteners. The taper pins are the devil to remove after 50 years. I found by getting a good point for leverage, pins could be slowly wiggled loose. I used an automotive brake tool from the shop that looks like a large 20" screwdriver but with a blade bent up at the end.

The larger taper pins mount in holes that are theoretically accessible from underneath the machine, but this is not a good option for the holes are nearly impossible to reach. The pins are not hardened steel, so if a few of them get bent they do not break and can be replaced.

4. Cast-Iron Parts

I was able to almost completely strip the top of the machine, with the exception of the 3D Justification Pin Block. It appeared to be cast iron, not steel and I did not want to take a chance by prying it up. When I assembled these parts, I added a little anti-seize compound to the pins and did not ram them in as hard as the factory must have.

5. Small Fasteners

My machine was so gummed up that I did not see a small fastener, I believe it was 28B1 (holding the Type Pusher Guide in position) and it broke off in the threaded hole. Fortunately, as the block it fit into was hardened, it did not gall itself tight, careful nudging with a small tool punch backed it out.

A Shop "Invasion" to Match Your Best Fantasy

Just as I was getting ready to cast the TABLE OF CONTENTS for this *Newsletter*, I got an urgent call from Dan Jones in Newmarket, Ontario, Canada, indicating that he would like to come to Terra Alta and bring with him a man who had been helping him get his Composition Caster back into operation. Arrangements were made and a few days later Dan arrived. John Cornelisse from Holland was with him.

I have known Dan for several years but I've never been to Holland, so John was a new acquaintance. The two told me of how they had been working on Dan's English Composition Caster, which Dan has owned for several years (but likely out of service for fifty years or more). As Dan disassembled the machine (see pages 36-38) he had discovered several badly worn, bent, or broken parts. Seeking replacement parts from me was part of the reason for their urgent visit. Even still, they had already succeeded in getting the machine back into operation and produced a full galley of composition just prior to their visit to Terra Alta.

Years ago I had corresponded with John Cornelisse when he was attempting to build his own Monotype -to-computer interface. He had a fully functional prototype with him, which was used to cast the type at Dan's shop. As a half-serious gesture, I suggested to John that I was fighting a few problems with my Composition Caster. That was exactly what he wanted to hear and before I knew it, my machine was coming

His absolute motto was Don't fight it—fix it!

apart as John tore into it. He ladled the metal from my pot and scorned me about having a "dirty pot." He went so far as to remove the electric heating elements and scrape out (or beat out) all the orange-yellow debris which we all know to be toxic oxides. All along he continued a litany about keeping the pot clean, keeping it drossed, keeping the floor clean, and somehow getting better ventilation into my low-ceiling basement. Frankly, I was astonished at the depth of his knowledge of *everything* dealing with the Monotype. His motto (unspoken) absolutely was "Don't fight it, *fix it!*"

His reworking of this machine was thorough to the point of removing and cleaning all the Air Pins, the Jaw Tongs, etc. I have been obsessive about Monotype for nearly fifty years, but John's commitment is, indeed, far deeper. He is the most intense and knowledgeable Monotype user I have ever met. As an example, he asked to see my English Bridges, so I pulled out two. The first he observed to have an unusual low-quad mechanism, saying he'd never seen it before. The second revealed "mathematics" components which I didn't know I had and assuredly never would attempt to use. As the day progressed, John's motto proved to be: "tear down, clean, lubricate, reassemble, adjust, test and then *run!* Before day's end, the machine was operational and producing better type than I have seen for a long time. The caster itself was quieter too.

The second day was like the first. This time John attacked my Supercaster. "Haven't you ever oiled this thing?" he asked. I confessed that the pump mechanism he held in his hands had never been off my machine and certainly had not been lubricated. John suppressed a desire to chastise me.

With this machine "reconditioned," Dan Jones took over, demonstrating his ingenius system for casting foundry display matrices of varying sizes and thicknesses on the Supercaster. He accomplishes his goal by placing the "Head" of the caster on poles, raising it inches above the Mold. His matrix holder is an extension of the standard English display holder

John became excited to find that I had possession of American Type Founders CIVILITE matrices and Dan proved his system was valid by casting several CIVILITE letters in 30 point. He explained that his holder will enable him to cast up to 72 point.

The third day John tore into my English Composition Caster and once again, he started by cleanind the pot. During this episode, Mike Bixler telephoned with a problem and while I was talking with Mike, I absent-mindedly opened the vise on my workbench, allowing the hot Pump Body to fall to the floor. It broke in half and I hurriedly ended my conversation with Mike to appraise the situation.

I had no spare English Pump Bodies. Dan said it likely could be welded by a competent welder. But there was no time. I had a third machine in storage which also was English, so we rushed to it only to find its pump mechanism had been switched to American parts. We resolved to do the same thing, for I had all the necessary parts. The machine was re-assembled but we ran out of time before testing could be done.

John and Dan left the next morning in order to make John's flight connections in Toronto. John has since reported that all connections were made and he now was back home in Holland. The trip from Newmarket to Terra Alta took eleven hours one-way, but both men were joyous that they had made the journey. *So was I!* How often do you find yourself with an expert Monotype *fanatic* in your shop, willing and anxious to fine-tune your equipment?

This page has been Monotype composed and letterpress printed direct from the type.