

SouthWest Tool Collector's Association

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SWTCA
NEWSLETTER

Volume 2004, Issue 2

April 7, 2004

The Workings of a Plane Factory

"Gleanings from the General Ledger of the Greenfield Tool Company, 1854"
Originally published in the August, 1980 Mechanick's Workbench

One of the largest manufacturers of wooden planes in the third quarter of the 19th century was the Greenfield (Mass.) Tool Company. We had the opportunity to study one of this firm's early ledgers. Since most of the research material published to date has concerned the decline of the firm in the 1870's and 80's, the information gained from this 1854 ledger may give some fresh insights into the early history of the company and the manufacture of planes in general during this period.

Chronology

1842-Alonzo Parker and Horace Hubbard began making planes as Parker, Hubbard, & Co., on the site where Edmund Burke had a woolen mill in Conway, Ma: **April 15, 1850**-Conway Tool Company was incorporated. (A. Parker, H. Hubbard, Daniel Rice, 2nd., & associates), with capital stock not to exceed 100,000.00. (State House Documents) **July 6, 1851 Sunday**-Fire destroyed Conway Tool Co. "The origin of the fire is altogether unaccountable, as there had been no fire used in the premises since Friday morning! **July 21, 1851**-Stockholders of Conway Tool Co. voted to rebuild undecided whether in Conway or elsewhere. **July 28, 1851**-Company decided to rebuild in Greenfield, on land donated by Judge Wells. New stock to be taken out **Aug. 4, 1851**-Greenfield Tool Company stock was subscribed; construction to begin immediately. **Aug. 18, 1851**"The Tool Company met and organized on Wednesday evening, by the choice of George D. Wells of Greenfield, clerk; Hopkins wood of Conway, treas.; E. B. McClellan, David Rice, 2d, Alonzo Parker, Simeon Phillips, of Conway; Wendell T. Davis, Cephas Root, and Lucuis Nims of Greenfield as directors. Wendell T. Davis was subsequently chosen president, and Alonzo Parker, agent of the Company. Operations are to be commenced this week." **Oct. 22, 1851**-Horace Hubbard died. Parker was signer of news paper notice and probably executor. **April 6, 1855**-GTC authorized to issue preferred stock not to exceed

250 shares. (State House documents) **From 1876 to 1883** -Apparent financial difficulties - many mortgage bond issues, involvement of banks, etc. **Jan. 8, 1883**-GTC declared insolvent, owing \$104,094.39

The ledger which is the subject of this study spans a period of 20 months, from April 1, 1853, to November 30, 1854. The 354 pages average 12 entries for a total of approximately 4250 entries. This ledger begins 20 months after the company moved to Greenfield and began construction of the new buildings.

Money received [CR] and money paid out [DR] are recorded on the same page and in the same column. No balances appear - only the running total of all transactions. Every entry contains the name of the person or firm involved but beyond that, the amount of detail varies considerably. Occasionally addresses and material unit costs are stated, so that if one reads the entire ledger a fair amount of information can be gleaned from each entry. Three other record books originally accompanied this ledger: a sales book, an invoice book, and a hands book, none of which is known to be extant. Although this general ledger lists each man monthly, what he did, and how much he was paid, the hands book apparently contained much more detail on the workmen. For each month also are entries for machinery and operations, material purchased, and payments from customers. It is evident that not much cash changed hands among the suppliers, the Company, and the customers; many complex trades and bank notes were involved. Also, numerous references to notes, taxes, and rents relating to the town of Conway appear, showing definite financial connections with the South River Cutlery Company there. In August of 1853, for example, Edmund Burke, an executive of the cutlery firm, paid the GTC \$450.00 for a shop lot in Conway, possibly that site on which Parker and Hubbard had first begun to make planes.

Plant and Machinery

As can be seen in the engraving and inferred from the ledger, the original factory consisted of a U-shaped forma-

tion of buildings, one leg of which was a two-storey wooden structure of approximately 5000 square feet/floor. The eastern leg of the U was a one-storey brick building with a two-storey portion at the front for office³ and a power house at the back. The ledger confirms photographic evidence of a lumber shed and sawmill in the rear, as well as a railroad siding. In the 1860's, the one-storey brick structure was elevated to two stories and connected to the front part with an integral roof.

The wooden buildings were destroyed by fire during the latter part of the century. Although much modified over the years by various firms, the brick portion of the factory and the power house remain intact and are still used for manufacturing today.

Power was provided by a steam engine, with machinery run by overhead shafting. Purchases of steam pipe and rubber packing and "work by Phillips on shafting" (June, 1853) confirm this. Some of the machinery pulleys must have been quite large, because in December, 1853, 67' of 5" belting and 12' of 8" belting were purchased from Jones, Brooks, & Thompson.

There is no mention of purchases of coal in the ledger, and the references to power in it imply that the steam boiler was fired by wood scraps and slabs from the sawmill. In October, 1853, the GTC sold 98 bushels of ashes to a G. Sanderson. The GTC often paid a man a day's wages for working the sawmill, and this plane making firm also possessed a planer. A man named A. A. Rankin was evidently the resident mechanic, as his name appears every month in such entries as "To Rent of power, to Aug. 1, 3 mos. \$25.00; to warming shops to date, 2 yrs. \$30.00," (July, 1854), and "Forging iron screws, etc." (June, 1853). He sharpened skew chisels, made bolts, repaired drills, fixed belting - a man of many skills!

Suppliers and Subcontractors

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Contact information is available on the website or in the Membership Directory

SWTCA Houston Spring Regional Meet

By Jim Goodson

Saturday dawned beautiful and sunny (for once!) to kick off the S.W.T.C.A. spring regional Houston tool meet. By 8:30 things were already off and running with dealers from all over the greater Gulf Coast area as well as some from as far away as Dallas, San Antonio and Blanco. The set up was on-going for the first hour as dealers and guests arrived and the business of tool trading began to seriously take place. Some 40+ people were on hand to enjoy the exchange of tools, lies and camaraderie. Bargains were available for the knowledgeable eye and lost to those who hesitated...myself

included. It was great to see so many old friends as well as many new faces among the guests. The incredible enthusiasm at tool shows is always a rush and though everything else in life changes...this does not! Thanks to all who came together to help as vendors and to all the rest of you that came to enjoy, participate and brought a friend to share the experience with. See you again in October.



From the Newsletter Editor

I had no written reports by publishing time on Gregor Mszar's January Bedford, Texas Tool Meet or Emery Goad's Ground Hog's day meet in Springdale, Arkansas.

I was at the Bedford Meet and have included some pictures from there. It was well attended, as usual, and had an very interesting program on antique wooden planes presented by Patrick Lasswell. For those who want more information, Patrick published quarterly newsletter called "Sign of the Jinter" and can be contacted by email at pmlasswell@evl.net.

I didn't make the Springdale meet, but I think I heard Emery Goad comment that there were over 170 in attendance.

I'm still begging for newsletter articles and starting to get a little frustrated. You would think that with over 300 members,(many of whom are very knowledgeable collectors or dealers; some of whom have already published books, articles, or type studies; a few of whom operate websites filled with a wealth of information) it wouldn't be that difficult to get four articles a year so our lead news-

letter story could be something new rather than just more re-prints. So once again, if you have a funny story or an article about anything relating to tools, tool collecting, tool trading, tool buying, tool restoration or care, etc., please send it me at 1318 Jeff Davis Drive, Tyler, Tx 75703 or email it to tmjtx@cox-internet.com or fax it to me at (903)939-0320. I'll spell check it, punctuate it, or whatever else you think it needs. Remember, part of being in a group is sharing some of your knowledge with that group and your newsletter will be no better than the information you submit.



SWTCA Semi-Annual Spring Meet

By Emery Goad

By 7:30 a.m. on March 27th over 60 tables of tools and displays had been set up and trading had begun at the Spring 2004 Semi-Annual Meet of SWTCA in Wichita, Kansas. Members from Iowa, Missouri, Kansas, Colorado, Oklahoma, and Texas attended.

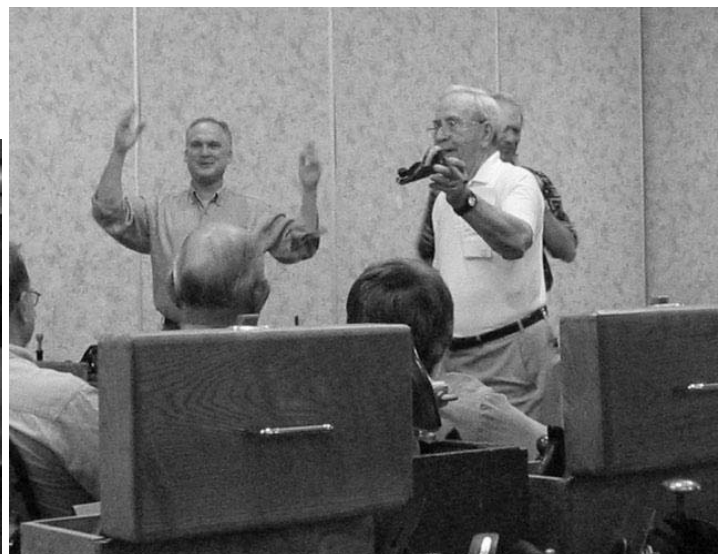
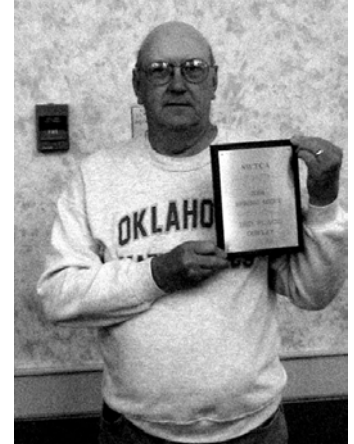
The featured program for the meet was an excellent presentation on Winchester Collectibles, the Winchester Company, their store displays, and Winchester fakes by Tim Melcher, from Grove, Oklahoma.

At the banquet that night, display awards were presented with 1st place going to Clint Litsey for his display on early grain sampling, and the tools involved. 2nd place went to Tim Melcher for his Winchester display and 3rd place to Jimmy Shipman of Mustang, Oklahoma for a study of block planes. Jackie Goad won the auxiliary display award for her display of old hats. Two of John Walcott's scratch awls were given as door prizes at dinner. They were won by Dave Moore of Halstead, Kansas (who got the only one I've ever seen made out of maple) and Graham Montgomery of Wichita, Kansas. A Gott tool bag also went to Mike Sisker of Derby, Kansas.

The member's auction on Satur-

day night benefited the club by approximately \$500. Highlights of the auction included an ivory, hand crafted Plum Bob made by John Walcott of Benbrook, TX, originally made for Bill Wooden of Tulsa, Oklahoma, and donated by Mr. Wooden. We also auctioned a second Plum Bob donated to the club and made by Mr. Walcott.

Clark Mountain, from Macksburg, Iowa, brought two Stanley #1 planes to the meet and they both left with new homes.



Want Ads

WANTED: Member written articles or tool tips, with or without illustrations, for all issues of the SWTCA Newsletter. Come on guys!!! Put some of those stories, tips, and advice we all hear at the tool meets in writing and email them to tmjtx@cox-internet.com

FOR SALE: 2 Ft – 4 Fold English Architects Rule-Ivory. Late 1800's—great condition. \$375. Stanley #45/#55 Cutters – Most numbers available; email request for availability. \$4 each or 6 for \$20, plus shipping. Stanley #55 "SPECIAL" Cutters #2, 29, 42, 46, 52, 56, 61, 63, 65, 66, 72, 74, 76, 81, 83, 91, 92, 94, 96, 101, 103, 105, 111, 112, 114, 116; \$15 each, plus shipping. Gregor Mszar, 817.937.5475, gregormszar@comcast.net.

FOR SALE: A local Ft. Worth resident has contacted the club concerning tools for sale. He stated that these tools came off the family farm and has just about anything you could want. Hand tools, wrenches, farm tools, boring machines, axes, whats-its. Please contact Ivan Harris, 817-927-5686. Call day or evening.

HELP: I need your help in finding someone that can sell me a couple new Starrett tools at discounted prices. There are two pieces I want but they are quite pricey. Can anyone get me in touch with someone who can help???? Thanks in advance. Gregor Mszar, 817.937.5475, gregormszar@comcast.net.

FOR SALE: Now you can visit us (and our tools) as often as you like. If you're looking for something special, need parts, or just want to see what "new" old tools Lynn has brought home this week, just give us a call at (972) 271-TOOL (8665) and we'll set up a time that's convenient for you. We can be available most days, including evenings or weekends, if we know you're coming. If you haven't

made it to one of our tool sales lately, come on over and see the changes we've made. We'll give you the grand tour and odds are we can help you find some unusual holiday gifts for someone on your list, or a little something special for your own Christmas stocking. We can make your shopping even easier with lay-away or gift certificates. We look forward to seeing you soon. Lynn & Tracy Dowd, Dowd's Vintage and Antique Tools.

WANTED: Cash for antique tool collections, big or small. Also cigar box openers, call or E mail Larry Creedon 817-354-4612 larryoldtools@aol.com

WANTED: Fancy old levels by Davis, etc. Also any literature, etc., on the Davis Level & Tool Co. that would help with my Davis study. Thanks, Mel Miller, 360-274-4973 or melmiller@adelphia.net

WANTED: Early patented planes - all the odd, strange looking ones. Will buy complete planes or just parts. Thanks, Mel Miller, 360-274-4973 or melmiller@adelphia.net

SEEKING INFORMATION: I am looking for information on the BENTON MFG. CO. or the BENTON COUNTY MFG. CO. They made axes and maybe other tools. They used at least three different triangular shaped logos on axes with the brand name OUR OWN, along with either of the two company names mentioned. Where were they? Possibly Arkansas or Ohio, maybe Pennsylvania. When did they operate? Contributor credit will be provided when project is published. Tom Lamond, 30 Kelsey Pl., Lynbrook, NY 11563-1516, or TomLamond@aol.com

WANTED: Hard to find No 2 size metallic planes, ie, Foss Patent, Hahn, Munks Patent, Orr & Lockett, Standard Rule, etc. Charley Koll, 5538 Gleason Dr, San Antonio, TX 78240 Ph 210-684-2767, chkoll@aol.com

WANTED: Old and unusual saw sets or saw related items. Prefer "as is" versus "cleaned". Ron White.

vwhite1557@earthlink.net

WANTED: 6 inch cast iron Davis and Cook " L " shaped corner level. No cast breakage. Keith at 2lman@cableone.net

WANTED: Antique Pencil Sharpners, prefer cast iron, pre-1900. Gregor Mszar, (817) 937-5475, gregormszar@comcast.net

WANTED: Patented Plow Planes, any and all condition. No Stanley please, except for Miller Patent. Gregor Mszar, (817) 937-5475, gregormszar@comcast.net

WANTED: Seeking material for book. All items marked "The Winchester Store" and all pre-1943 advertising, sports items and paper. Also ARMAX, BARNEY & BERRY, CRUSADER, and HENDRYX items. Tim Melcher, (918) 786-8500. tmelcher@greencis.net and at www.thewinchesterstore.com

WANTED: 4" Crescent-Style Wrenches: I pay \$70 for J.C. Penny, \$200 for Keen Kutter-Simmons. Emery Goad, (888) 889-3340, kisinc@swbell.net

WANTED: Stanley #2 type 18 (I'm betting that no one has seen one, but I keep looking). Fillet-ster bed for Miller's Patent #41, type 4 (japanned) or type 9 (nickel plated). Buy or trade. John Steele 6615 W 147 Terrace, Overland Park, KS 66223 913-897-9064, jsteele490@aol.com

WANTED: Axe and/or Hatchet labels or markings; copies or photos; B/W or color; hard copy or downloads. I'll redraw them. Also axe manufacturer and/or wholesaler basic information. Contributor credit will be provided when project is published. Tom Lamond, 30 Kelsey Pl., Lynbrook, NY 11563-1516, TomLamond@aol.com

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WANTED: I have an interest in Stanley Everlasting Chisels. I am looking for a "salesman split chisel" that was used to show the inner workings. About 2 years ago I started a "Type Study" that I would like to finish. I would like to contact anybody else who has collected info on same. The last type with "simulated rosewood" composition handle I do not have yet either. My web site hasn't changed in a long time and I have more chisels now with better markings. I have been slowly approaching a full set of #20's, #40's and #50 over the last 4 years but still lack a few. Over the holidays I started a Chisel Cabinet with hand-cut dovetails (using Disston backsaw and Everlasting Chisels) Take a look. Find Everlasting Chisels page and then go to Number #20 or #50 and you will see the types I have found so far. Any thoughts on finding others with interest in Everlasting Chisels would be appreciated. Gordon Muster, <http://users.ev1.net/~gmuster> or oldtooluser@cswebmail.com

WANTED: Siegly Plow Planes #2, All Types and condition. Parts welcome. Jim Gatlin, 150 Longhorn Drive, Bastrop, TX, 78602-5053, (512) 321-2142, jimpeggat@msn.com.

WANTED: Lever caps for No 2 size metallic planes. Contact: Charley Koll, 5538 Gleason Dr, San Antonio, Tx 78240 Ph 210-684-2767, chkoll@aol.com

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Want Ads

FOR SALE: HOLLOW AND ROUNDS AND BEAD SETS.

Set A - condition good. Mathieson 2 to 18 set of 18 planes. No #4 Mathiesons but has two #4 Mosley hollows instead (easy to make a round out of one of these) and is missing a #12 round (has a #11 hollow in place of it). you can look for the missing Mathieson planes which should be fairly easy to find to make it perfect. List price for this set is \$300 and will sell for \$250. Set B - condition good. Mathieson- 2 to 18 set of 18 planes Has a #2 Mosley hollow instead of Mathieson. No #10 round and has a #10 Mosley hollow to replace it. List price is \$300 and will sell for \$250. Set C - condition very good to fine. Nelson - Edgeware Road - 1 to 17 odd set of 18 planes. This set is perfect and a rare odd number set. List price is \$700 and will sell for \$600. Set D - Condition very good. Nurse - 7 Mill Street - 2 to 18 set of 18 planes plus 5 matching beads and 1 bench plane. Total of 24 matching planes for the same tool box! List price \$895 and will sell for \$700. Set E - Condition good. Wilcox - Manchester - 2 to 18 set of 18 planes has several replacement planes that include #2 Lunt, #4 Varrville hollow, #10 & # 12 Davis hollows, #14 Varville round. List price \$ 275 will sell for \$200. I have the matching set of Wilcox beads - 8 planes that I will sell for \$200, list is \$240. Contact Troy Marshall - tmars-shalli@aol.com

INFORMATION: I have started an independent newsletter for the SoCal Old Tool Swap Meets. The publication will be called TOOLSWAP/usa, will come out 4 times per year and its focus will be on the Southern CA events, but the web site will link to all the other old tool sites and be called TOOLSWAPUSA. I'll be able to continue my creative work and I have lots of ideas for articles that will be interesting to anyone who loves old

tools and the stories behind them. The first publication came out in October. It is one page, two sided with all the superfluous club stuff cut out. It is donation driven but the costs will stay low because there will be limited mailing (to subscribe to the newsletter will cost \$10 per year in order to cover printing, mailing, and handling). TOOLSWAP/USA will be handed out at all the SoCal Old Tool Swap Meets and at the San Diego Show in January. The email is laura@toolswapusa.com. And my web address is www.toolswapusa.com Hope to see you in San Diego in January. Laura Pitney

ATTENTION USERS AND COLLECTORS! They DO make them like they used to!! THE EXQUISIT TILL has become the only distributor of Adria Toolworks saws in the Southwest. Check them out at www.adriatools.com For a limited time I am offering a special discount to SWTCA members only. These are absolutely stunning hand crafted saws. Most people who try them say the handles are much more comfortable than the mass made and marketed Lie-Nielsen saws. 8" Dovetail..\$105 plus shipping, Small Tenon (crosscut or rip)..\$115 plus shipping, Large Tenon (crosscut or rip)..\$125 plus shipping. Shipping is typically around \$5 for the 1st saw. I don't charge any handling fees, only the cost of shipping. Because they are hand crafted by a single talented craftsman (Eddie Sirotich) at this time, these saws are in short supply and there is no guarantee that they will be available in the future. If you are a collector, now is the time to put some back as an investment. If you are a user, you know the difference an investment in quality tools can make. Ron Huebner, lonelobo@highstream.net, 214-707-8102, Fax: 817-854-0101.

FOUND: In my box upon return from Albuquerque: A round, tapered, reddish-brown wooden pin, 7/16"± x 3"± long, tapering to a point, with a small steel point inserted. At about the third point, there is a semi-circular notch about 1/4" deep. What the hell is this thing? Somebody must need this bad. Bob Finch 303-232-1932. ffinch@aol.com

FOR SALE: 9" Wood chisel with fluted handle, marked CRESCENT TOOL CO JAMESTOWN NY No. 175 - 1 1/4 USA \$30.00 pp. 10" TRUSTWORTHY PLANE \$30.00 pp. Wrenches: CHATTANOOGA #4 \$200.00 pp; CHATTANOOGA #3 \$30.00 pp; DREIS & KRUMP 12" IMP.\$32.00 pp; SYRACUSE Z2 excellent repair \$35.00 pp. Can trade for 4" crescent type wrenches with rare names. I buy 4" crescent wrenches. Roy Huntley (870) 365-0053.

WANTED: Antique dental and medical instrument. Prompt payment in American dollars. Bill McDougall, 4020 Grande Dr. NW, Albuquerque, New Mexico 87107-2724. (505) 344-9272, jandbmc@aol.com

WANTED: A Type 20 Stanley No 2 plane. This is an 8" No 2 plane with blue japanning. Plane has a larger brass adjustment wheel and a Kidney shaped hole in the lever cap. Contact Charley Koll, 5538 Gleason Dr, San Antonio, Texas, 78240, (210) 684 2767, chkoll@aol.com

WANTED: Winchester items, tools, sporting goods or advertising. No firearms. Collections or pieces OK. Please advise price and condition. David McDonald, 14211 Kellywood Lane, Houston, Texas, 77079. (281) 558-5236, un-dermc@evl.net .

WANTED: Cast Iron Levels in G++ Condition. Should be complete and intact. Also broken levels for vials, inclinometers.

Please, no Stanley or Starrett. Gregor Mszar, (817) 937-5475, gregormszar@comcast.net

WANTED: Breast drills, hand drills, push drills, bow drills, pump drills and archimedian drills. Seeking the more obscure made in U.S.A. models for a research project. Even if you are not interested in selling, I'd like to hear about different drills in your collection. If possible send details & digital photos to Mike Urness at PLNCRZY@aol.com or by snail mail to PO Box 6022, Chesterfield, MO 63006-6022.

DON'T FORGET: When you change your email address, please make sure I get your new address. Just send it to me with the Subject: New Email Address, and I'll use the return address. Thanks. Gregor. gregormszar@comcast.net

FREE: ADS for the SWTCA E-M@RT monthly classified newsletter. All SWTCA members in good standing (or members of all recognized clubs), can place a reasonable number of ads each month. All ads should be received by the 1st day of the month for publication that month. EM@RT will be published during the first week of each month at a random time and date (whenever Gregor can get to it). Send all ads to gregormszar@comcast.net

WANTED: Member written articles or tool tips, with or without illustrations, for all issues of the SWTCA Newsletter. Come on guys!!! Put some of those stories, tips, and advice we all hear at the tool meets in writing and email them to tmjtx@cox-internet.com

INFORMATION: The newsletter is now posted to the website each month. If you would prefer to receive it in Adobe File Format by email, please send an email request to Tim Johnson at tmjtx@cox-internet.com.

The Workings of a Plane Factory

"Gleanings from the General Ledger of the Greenfield Tool Company, 1854"

Originally published in the August, 1980 Mechanick's Workbench

(Continued from page 1)

Perhaps the most interesting references in the ledger give the names of suppliers to the GTC. Plane irons, for example, were purchased occasionally from Thomas Douglas, William A. Dodge (the few English irons by William Ash came from Dodge), Kellogg, Cobb, & Co., and the Baldwin Tool Co. Regular large orders for plane irons were placed about once a week with the Humphreysville Mfg. Co. and almost daily with the Providence Tool Co. It would appear from the complexity of financial transactions with the latter that the Providence and Greenfield Tool Companies were somehow connected. Timber was evidently purchased from small farmers in the hills of western Massachusetts. The sources listed are rarely repetitive. An exception is Alonzo Parker, who must have owned a forest since plane timber and hemlock boards for boxes were purchased from him frequently. The Company paid approximately \$.05/board foot for beech timber in quantities of up to 5000' at one time, and beech was also purchased split at \$.045 apiece. Boxwood was supplied by Kellogg, Cobb, & Co., of Boston, and on February 1, 1854, the GTC had \$1257.00 worth of "foreign woods" on inventory. GTC occasionally sold timber, also, possibly that which was not up to their standard.

Names of well known plane making firms appear as suppliers in the ledger often. From Allen Cummings of Boston were frequently purchased jointer, fore, and jack plane stocks (453 at one time in October of 1854, for example) and plough stops; in return, Cummings bought from Greenfield linseed oil, nails, and even some finished planes. J. E. Child of Providence supplied stocks not only for bench planes as did Cummings, but also for rebate and moulding planes. In September, 1853, he sold to GTC 100 moulding and cornice stocks and 200 bench stocks. He also rebated 250 moulding stocks, presumably for boxwood inserts. All this plus the four boxes to ship them in came to a total of \$56.72. This purchase is somewhat of a mystery; with a work force of over 60 and production approaching 10,000 planes/month, it would indicate that the GTC was having trouble meeting the demand. Other purchases made by the GTC include castings from the W. W. Draper Co., sheet brass from the Waterbury (Conn.) Brass Co., and boxes from Henry Rodgers, probably a local man. The small town of Chesterfield, Mass., was the home of S. Tower & Co., suppliers of sand paper, files and brass, and boxes of handles. Another interesting entry is the purchase of 23 gross 3fa! screws, for cash, in the town of Fitchburg, Mass. (October, 1853).

Work Force and Production

The ledger lists monthly the employees, who fell into three categories: piece workers, day workers, and salaried. The latter were only the officers, who were listed without titles, Alonzo Parker always first and with the largest salary (\$83.00/month). The others listed were H. Woods (\$58.33), Horace Roberts (\$37.50), and A. Garrett (\$30.00). By March of 1854, Mr. Roberts had disappeared from the books. Day workers are those who were neither salaried nor listed with production figures. Thus they were almost certainly office workers, packers, maintenance men, etc., often working six days a week and 8 -12 hours a day, at about \$.16/hour. Foremen were evidently included here also, as E. B. McClellan earned a relatively high salary and his name appeared with the piece workers occasionally.

Employees who did piece work tended to be specialized. Thus the entire production of sash planes was made by Frederick Streeter and fillisters by A. C. Hitchcock. John Lester produced only small bench planes, and both Charles Amidon and Levi Gunn made only plough and match planes. In September, 1853, Roswell Andruss was credited for "sundry small jobs to date - 765 pairs Plow arms, 207 Setts Match Plane arms, 160 pairs Sash Plane arms, 108 prs. Sash Plane self-reg. arms." I Pay for all of the employees was often not in cash but in trade for materials or in bank notes; the transactions become quite complex. It appears that the Company recorded the money earned by each man monthly but did not payout that money in cash until asked for it. Thus, Reuben Crafts is credited with \$23.38 for the month of October, 1853; the following month his name appears again, with the following breakdown, totaling \$23.38: merchandise as per hands book \$.25; discount for cash \$1.17; and cash \$21.96. We think that the GTC may have acted like a company store, allowing the men

to have cash for their salaries earned but with a slight penalty, 511%, for so doing. It is also possible that this was some sort of an arrangement to finance apprenticeships we found this interesting entry for January 18, 1854: "H. S. Dickinson, By labor to balance old account. This balance arises from the fact that while at work for the Co. as an apprentice his work did not amt. to so much as his wages and board cost." Details of these transactions are I apparently in the undiscovered hands book.

The figure of "100 hands" often cited as the work force of the GTC coming from the Conway Tool Co. appears to have been exaggerated. In the first month of the ledger, April, 1853, the total number of employees was 67 (49 piece workers, 14 day, and 4 salaried). By November, the breakdown was 60 piece, 14 day, and 4 salaried, for a total of 78, the peak of employment. A year later, November, 1854, the number of piece workers listed had declined to 10, day 11, and salaried 3. Of the 10 piece workers, three were listed individually and the others in groups - Rice & Gunn, Hitchcock & Amidon, and McClellan, Bryant, & Remington. Monthly Production increased by about 2000 planes per month in these 12 months, despite this drastic reduction in work force. We have two possible theories for this change. One is that the groups named acted like subcontractors and the work of the previously listed individuals became included under their names. The other is that the reduction in the number of employees was due to increased mechanization. Evidence from the ledger tends to support the latter idea, since by November, 1854, there are three people listed under power and machinery, as opposed to one part-time man for the same month the previous year.

The production listed for each of these groups is considerably higher than that when they were working individually, and therefore the amount paid for this piece work increased greatly, even though the cost per piece was slightly lower than the previous year. Rice & Gunn, for example, would have been extremely well-paid and even wealthy if they had not either had others working under them to pay or raw materials to buy, as their combined salary was about \$600.00/month [compared with Alonzo Parker's \$83.00]. There is no indication that the GTC sold raw materials to any of these groups, and so we are left with no certain answer from the ledger. We have studied in detail the output of the Company for the two months of November, 1853, and November, 1854. In summary, the total number of items rose from 9,558 to 11,899; and dividing the total salaries paid to all workers by these totals yields an average cost per item of \$.23 in 1853, lowering to \$.205 a year later. Again, mechanization would seem to be a factor here. Bench planes included the standard ones as well as cooper's jointers, mitres, raising, toothing, and ship-builders' razeed planes. A small portion of the smooths were of boxwood, and a small portion of each of the larger types were made with single irons. Jointers, only 300 in quantity as opposed to 1500 smooths in November, 1853, were produced in three lengths - 26, 28, and 30". Moulding planes in November, 1854, consisted of approximately 2400 hollows and rounds, 1100 beads of all types, 795 complex mouldings (table planes, ogees, etc.), and 15 wide handled planes. It is interesting to note that the hollows and rounds were made in only four sizes, #12, 16, 20, and 24, throughout the ledger. This again may be indicative of machinery in use. Perhaps the GTC had a trade agreement with other firms in order to sell complete sets of hollows and rounds. Approximately 400 handled match planes were made in November of 1853, together with about 200 unhandled and 400 adjustable match planes. Several were plated. With rebating planes are included standard fixed rebates, dadoes, and fillisters. Both fillisters and sash planes were made of boxwood, rosewood, and ebony occasionally. Sash planes were about evenly divided between fixed and adjustable models.

Plough planes, perhaps the most interesting to collectors because of their complexity and beauty, were made of four types of wood: beech, boxwood, rosewood, and ebony (no mention of apple wood is made anywhere in the ledger. 1843 plough planes were made. All of these 1.843 ploughs were made by only five men, with two to four of them producing ploughs in any given month, and with all five capable of producing all the varieties and grades. Beech ploughs came in three grades, first to third (over 70% were first rate), with one entry for fourth rate ploughs. This was under a new name, perhaps an apprentice.

(Continued on page 7)

The Workings of a Plane Factory

"Gleanings from the General Ledger of the Greenfield Tool Company, 1854"
Originally published in the August, 1980 Mechanick's Workbench

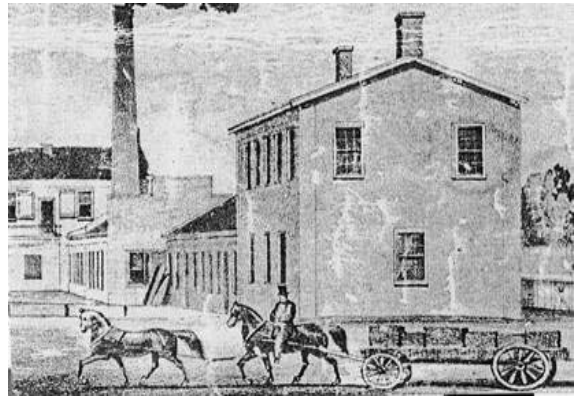
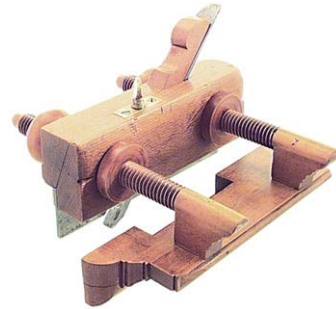
(Continued from page 6)

Not detailed are the variations in trim available, such as a dovetailed boxwood insert along the face of the fence, side lock screws, German silver trim, and ivory tips. In the entire year's production, only two ivory tipped planes in ebony and two in boxwood were produced. One of the ebony planes had German silver trim. The paucity of these elegant models may indicate that they were salesmen's samples or exhibition models. One can see why the ivory-tipped models are so highly prized by today's collectors.

We suspect that the GTC purchased marking gauges for resale previous to 1854, as in April of 1853 they bought 10 dozen from R. & F. H. Terry of Hartford. Apparently in 1854 they began the manufacture of gauges; there are frequent purchases of walnut timber, and it does not appear in any planes.

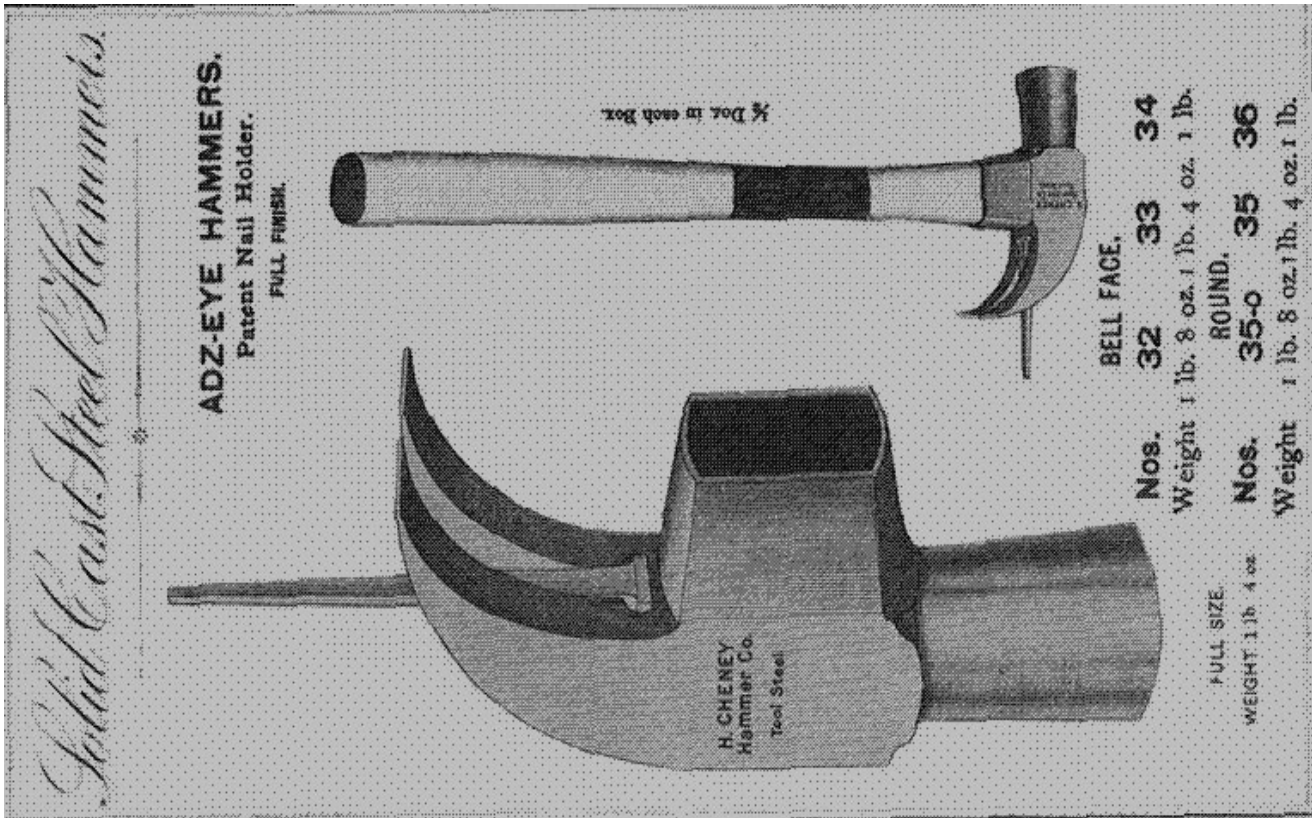
Markets and Customers

The Greenfield Tool Company was located on the Connecticut River Railroad, which may have been a factor in the 1851 choice of Greenfield over Conway as the site for the new factory. In January, 1854, a man was paid for making a railroad car, which would indicate that the Company had a car for its exclusive use. Although GTC planes were ultimately shipped as far as California, Canada, and South America, in this early ledger, sales appear to be limited to the eastern seaboard. All the firms identified by city were located in the East: Rutland, Vt.; Worcester, Mass.; Hartford, Ct.; New York City; Baltimore, Md.; Norfolk and Richmond, Va.; Charleston and Hamburg, S.C.; and Augusta and Savannah, Ga. Apparently a majority of the sales were handled by three main firms acting as agents: Pettibone & Co. [probably New York City], William Norris (Baltimore), and Way Brothers & Co. (New York and Hartford).



Upcoming Events

- APR 17** **CRAFTS ANNUAL SPRING AUCTION** FLEMINGTON, NJ GREG WELSH , 908-439-3266 glwels@aol.com
- APR 23-24** **LIVE FREE OR DIE TOOL AUCTION** NASHUA, NH MARTIN DONNELLY , 800-869-0695 www.mjdtools.com
- APR 30 – MAY 1** **F. JOHNSON COLLECTION TOOL AUCTION** FORT DODGE, IA www.rognessauction.com - FORREST JOHNSON (515) 573-7586 fjohnson@dodgenet.com
- MAY 12-15** **EAIA ANNUAL MEETING** WILMINGTON, DE ELTON HALL www.eaiainfo.org
- JUNE 6** **FINE TOOL JOURNAL ABSENTEE AUCTION** POWNAL, ME CLARENCE BLANCHARD 800-248-8114
www.finetoolj.com ceb@finetoolj.com
- JUN 17-19** **MWTCA SPRING NATIONAL MEETING** AKRON, OH JOHN KESTERSON 330-753-2751
- JUL 24** **8TH ANNUAL HOTTER'N'HELL MEET, SWTCA/MWTCA AREA-I** BEDFORD, TEXAS GREGOR MSZAR (817) 937-5475 gregormszar@comcast.net
- JULY 30** **TOOL SHOP INTERNATIONAL AUCTION** NEEDHAM MARKET, SUFFOLK, UK TONY MURLAND
011-44-1449 722992 www.antiquetools.co.uk



SWTCA Newsletter
January, 2004

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