

The Davistown Museum
The Ancient Dominions of Maine: An Archaeology of Tools
The Industrial Revolution (1865f.): Classic Period of American Machinists' Tools
Hegemony of the New England Toolmakers

The period between 1840 and 1865 was a time of rapid industrial change that culminated in the Civil War. By the end of the Civil War the world of the toolmaker and the tool user had changed radically and would never be the same. The key event in the florescence of the Industrial Revolution was the direct process production of steel by the Bessemer method, soon supplanted by the more flexible modern Siemens open hearth method, which allowed quality control production of countless alloy steel variations. There was a vast increase in the variety of tools in the tool kits of the machinists and woodworkers who worked after the Civil War. The mass production of steel permitted the continued rapid growth of both railroads (iron rails soon become steel rails) and the factory system that supplanted and gradually made obsolete the small workshops of the mill towns of rural America, including Liberty and Montville. The final display area of the "Archaeology of Tools" is devoted to illustrating some of the tools typical of the new tool kits that began supplanting the implements produced by the blacksmiths and small forges in the earlier maritime culture of Maine and New England. The transitional and patented planes and the classic machinists tools in the Museum exhibits are important historical artifacts illustrating cultural change as well as esthetically interesting sculpture objects.

Despite the full onslaught of the Industrial Revolution, shipbuilding continued in Maine, especially in the larger parts of Penobscot Bay, Waldoboro, Damariscotta, and Bath. A golden age of exquisitely designed and constructed schooners and downeasters supported a flourishing industry of Maine edge tool and agricultural equipment manufacturers, but the most important developments in manufacturing technology, including edge tool and hand plane production occurred in southern New England, where the classic period of American toolmaking overlapped with Maine's lingering maritime culture.

The sojourn of America's first machinists in Maine, Darling, Bailey, and Schwartz, was brief. The florescence of the classic period of machinist tool manufacturing was in southern New England. The maritime culture of Maine was in decline. The final sections of the exhibition of the Davistown Museum's "Archaeology of Tools" illustrates the rapid emergence of new types of meticulously designed and constructed tools.

Martin Donnelly, in his introduction to the classic period of American Machinist Tools, provides this summary of machine tool production in the early years of the Industrial Revolution; a final footnote to the hegemony of New England's maritime culture.

The Classic Period of American machinist tools... [is] that period of time from shortly before the American Civil War to the beginning of the First World War when, in response to tremendous economic growth and technological advancement, there was an incredibly rapid increase in the number of manufacturers and marketers of machinist tools. A great number of companies and individuals, producing all manner of products, grew and prospered, marketing elaborately conceived and artistically machined hand tools for those skilled workers who manned the engines of industry. As the end of this Classic Period approached, the vicissitudes of the emerging economy, which brought periodic recessions or 'panics', together with the need to compete on a national, rather than regional, scale, had served to eliminate nearly all of those many companies. Certain industry leaders, particularly the L.S. Starrett Company of Athol, Mass., and the Brown Sharpe Mfg. Company of Providence, R.I., were the principal survivors, in many cases (particularly that of Starrett) buying out the other companies as the businesses of those companies foundered. As this Classic Period came to an end, standardization of design and minimization of embellishment became the rule, largely as a result of the demands of mass production. In many cases, tools included in the Starrett product line at the end of this period continue to be produced in essentially the same form today.

During the Classic Period, however, as new companies competed for a share of the business in a dynamic market, a tremendous number of well-made precision tools, many of them protected by patents and decorated with artistic knurling, were marketed by a competing group of firms and a substantial number of individual entrepreneurs. Many of these tools and their makers failed to survive in an increasingly competitive environment, and, as companies reduced the number of products offered in the face of inadequate business success, certain elaborately embellished and mechanically ingenious tools of a very high quality... were cut from the product lines.

The many tools in the museum collection dating after 1865 illustrate the vigorous growth and evolution of the classic period of American toolmaking, documented in volume 8 of the Davistown Museum "Hand Tools in History" series.

Principal Machinist Tool Manufacturers of the Classic Period: <http://www.davistownmuseum.org/TDMV/toolMfg.htm>

Edge Tools - American Made Cast Steel

32405T1 **Countersink** DTM

Cast steel, 5 5/8" long, 3/4" wide, signed "PATENDED" "JAN 23, 1877." "D.J. ADAMS" "KITTERY, ME." and "R.L. MARKS".

The Directory of American Machinery and Tool Patents lists this as patent number 186,513 for an improvement for countersinks and also shows the patent diagram at:

<http://www.datamp.org/displayPatent.php?number=186513&type=UT>. It is unknown who manufactured the countersink. R.L. Marks was probably an owner. A countersink is a tool used to make a hole with the top part enlarged so the head of a screw or bolt will lie flush with or below the surface.

Maine Made Tools

72002T2 **Level** DTM MH

Wood (cherry?), 12" long, 1" wide, signed "E. T. BURROWES CO." "PORTLAND, ME." on brass plate, 1910 (?).

A mundane late example of an everyday household tool made by one of Maine's most prolific toolmakers.

http://www.davistownmuseum.org/pics/72002t2_p1.jpg

<http://www.davistownmuseum.org/publications/volume10.html>

Measuring Tools

Up until the 1850s most every foundry producing machinery for the burgeoning Industrial Revolution manufactured their own hand tools. Up to this time, the art of measurement was not very precise; it wasn't until

1856 that JR Brown invented the first micrometer. Most of the early machinery built for the water mills of southern New England were worked by hand and eye, with hand filing and primitive measurements the primary techniques available. After 1860, small companies like the J Stevens joined JR Brown, later Darling, Brown & Sharpe and other flourishing machine shops to begin the mass production of precision hand tools that were so necessary for the accurate construction of the complex factory machinery of the Industrial Revolution. In this context, in Davistown Plantation, time stopped.

21201T11 **Adjustable caliper** DTM

Steel, 6 1/8" high, signed "J. Steven A & T Co. Chicopee Falls Mass".

This signature is one of three variations listed in DATM (Nelson 1999, 757) for this prolific maker of bits, calipers, dividers, levels, machinist tools and guns, 1864 - 1903. In 1903 they were bought out by L.S. Starrett.

TJS1301 **Adjustable calipers (3)** DTM

Cast steel, 3 1/4", marked "US 48610568" on wrench.

<http://www.davistownmuseum.org/pics/tjs1301.jpg>

51100T14A **Adjustable die stocks (2)** DTM

Cast steel, 10 7/8" and 14 3/8" long, signed "J. M. King & Co. Waterford, NY".

DATM (Nelson 1999) lists this company in Waterford from 1887 - 1910. They made dies, pliers and taps; these tools are encountered frequently.

101701T16 **Adjustable diestock** DTM

Cast steel, 13 5/8" long, signed "J. M. King & Co. Waterford NY No 42".

Interestingly, DATM (Nelson 1999) lists a Daniel King in Waterford, NY, as making dies (1876 - 1895) and several J Kings as making planes. Was this tool made after 1900?

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42602T6	Adjustable dividers	DTM	
<p>Steel, 8" long, signed "J Stevens A & T Co Chicopee Falls Mass USA". Formerly the J Stevens & Company, they changed their name to Stevens Arms & Tool Co. in 1886. Always a prolific maker of guns, their hand tools are sought after examples of the classic period of American machinists' tools.</p>			
81101T18A	Adjustable dividers	DTM	
<p>Steel and brass, 5 3/4" long, signed "Peck Stow & Wilcox" and "6". Peck Stow & Wilcox began operations in Southington, CT, in 1870 (to 1950). For details on their predecessors and history, see DATM (Nelson 1999) pg. 610. An excellent example of the quality of a major producer of tools during the florescence of the classic period of American machinist tools.</p>			
83102T9	Adjustable dividers	DTM	
<p>7" long, signed " L W POND" and "WORCESTER MASS PAT'd Sept'26 1867". Lucius W Pond made calipers, dividers, and machinists' tools from 1859 - 1884. This caliper is a very uncommon tool. It was patented by Edward Wright and also later made by the Wright Machine Co. of Worcester. Pond's primary products were large machine tools, primarily planers (Nelson 1999, 627).</p>			
22211T19	Architect's scale	DTM	
<p>Boxwood, 12 3/4" long, 7/8" wide, signed "U.S. ST'D". Part of the Robert Sullivan Collection donation.</p>			
22211T23	Architect's scale	DTM	
<p>Boxwood, 6" long, 1" wide, 1/4" thick, signed "KEUFFEL" "& BESSER CO." "N.Y." in a circle, "1419" and a winged griffin trademark. This rule has a metric scale and is one meter long. Part of the Robert Sullivan Collection donation.</p>			
102100T4	Bevel	DTM	
<p>Cast steel, 3 1/8" long, unsigned.</p>			
30202T6	Bevel square	DTM	
<p>Steel, 6 1/2" blade, 7" blade guide with 2" adjustable nut, signed "Alworth Bevel Square Rule ___ as made by Stark W ___ ss USA PATENTED Aug 7, 1888". DATM (Nelson 1999) lists a Stark Tool Co. in Waltham, Mass, operating between 1862 - 1902. They were issued a patent for a spring chuck jewelers' lathe and their lathes turn up occasionally in the Boston area. Neither Cope nor DATM list an Alworth. This particular design for a bevel square and this maker's mark have not been seen before by the curator. http://www.davistownmuseum.org/pics/30202t6.jpg</p>			
102800M7	Caliper	DTM	MHC-K
<p>Steel, 6" outside, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102800M8	Caliper	DTM	MHC-K
<p>Steel, 5" long, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102800M6	Caliper	DTM	MHC-K
<p>Steel, 6" outside, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102800M5	Caliper	DTM	MHC-K
<p>Steel, 6" inside, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102800M3	Caliper	DTM	MHC-K
<p>Steel, 11 3/4" long, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102800M4	Caliper	DTM	MHC-K
<p>Steel, 9 1/4" long, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			

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111001T4	Calipers	DTM
<p>Cast steel, 4 7/8" long, signed "L. W. Pond Worcester Mass PAT. Sept 24, 1867". DATM (Nelson 1999) lists this maker as Lucius W. of the Pond Machine Co., who made larger machine tools, primarily planes. An exceedingly rare signature on a caliper.</p>		
31908T29	Calipers	DTM
<p>Steel, 7 1/2" long, signed "C DELSTEN & SON" and "C & S".</p>		
090508T4A	Calipers	DTM
<p>Steel, 5 1/2" long, signed "GEO. PLUMPTON" with an X trademark.</p>		
102100T3	Calipers	DTM
<p>Cast steel and brass, 3" long, unsigned.</p>		
121805T26	Calipers	DTM
<p>Steel, 4 7/8" long, signed "E R Wharton". No E. R. Wharton is listed in DATM (Nelson 1999). http://www.davistownmuseum.org/pics/121805t26_p2.jpg</p>		
TJR3001	Calipers	DTM
<p>Drop forged iron or steel, 10 1/2" long, unsigned.</p>		
102100T2	Calipers	DTM
<p>Cast steel, 6" long, signed "Boker". DATM (Nelson 1999) lists an H. Boker & Co., but does not list it as using only Boker as the mark. The working dates are 1837-1969. It was the US affiliate of a German company and imported most of its tools until purchasing the Valley Forge Cutlery Co. in 1899. http://www.davistownmuseum.org/pics/51100t6.jpg</p>		
102800M2	Calipers	DTM
<p>Drop forged steel, 13 1/2", unsigned.</p>		
111900T14	Center finder	DTM
<p>Steel, 6 5/8" long with a 6" pivoting arm, signed "The L S Starrett Co Athol Mass USA". DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm</p>		
091608T2	Compass	DTM
<p>Steel, 10 1/2" long including the two adjustable 2" long extensions, signed "SULLIVAN'S PAT" "MAR 9, 1880". The angle of the legs can be changed by two locking mechanisms at the ends. The markings on this tool are particularly crisp and clear; the tool is in fine condition. We haven't seen this model of calipers before; this is an uncommonly encountered tool as evidenced by the fact that it is listed in DATM (Nelson 1999) without location, dates of operation, or the first name of Sullivan. DATM also notes obviously incorrect dates of 1980 as well as 1890 on previously reported specimens. Further information on the identity of Sullivan would be greatly appreciated.</p>		
32708T46	Compass/caliper/divider	DTM
<p>Metal, 7 1/2" long, 8" wide when open, signed "THE L S STARRETT Co" and "ATHOL MASS U.S.A.". Laroy S. Starrett Co.'s working dates were from 1880 - 1994. http://www.davistownmuseum.org/pics/32708t46-1.jpg http://www.davistownmuseum.org/bioStarrett.htm</p>		
121201T2	Dividers	DTM
<p>Drop forged malleable iron, 6 3/8" long, signed "P S & W co.". This is the mark of the famous Peck Stow & Wilcox Co. of Southington, CT, which was organized in 1870 through the merger of a variety of companies. A major manufacturer of fine hand tools during and after the classic period of American tool manufacturing. DATM (Nelson 1999, 610) contains extensive historical information on this company.</p>		
31811T11	Dividers	DTM
<p>Cast steel, 9" long, 5/16" wide, signed "OLDENBURG" and the James Swan trademark.. http://www.davistownmuseum.org/bioSwan.html</p>		

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- 111900T7 **Dividers** DTM
- Steel, 3 3/8" long, signed "B.S. Mfg Co Prov. R.I. USA".
Brown & Sharpe, a major competitor of Laroy Starrett in Athol, MA; The first mass produced micrometer was designed by J. R. Brown in 1856.
<http://www.davistownmuseum.org/bioBrownSharpe.htm>
- 122002T1 **Dividers** DTM
- Steel, 4" long, signed "Stevens & Co.".
DATM (Nelson 1999, 757) contains historical information on Joshua Stevens & Co.
- 111900T12 **Dividers** DTM
- Steel, 3 13/16" long, signed "Starrett Athol Mass".
DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co.
<http://www.davistownmuseum.org/bioStarrett.htm>
- 1302T3 **Dividers** DTM
- Cast steel, 5 1/2" long, signed "Mfg by Charles B Fay Springfield Mass USA".
Prior to starting his own company, Fay worked for Steven Arms & Tool Co., J. Stevens & Co. and L S Starrett. "Fay assigned a number of patents to both Starrett and Stevens while working for them." DATM (Nelson 1999, 274). He had his own company from 1884 - 1887 then sold his business to L S Starrett.
- 041505T32 **Double calipers** DTM
- Steel, 8" long, 3 1/2" wide, signed "J. HOOD".
DATM (Nelson 1999) lists a John Hood Co. of Boston as a maker of farriers' hoof levels. There is a William J. Hood Mfg. Co. of Rhode Island, circa 1889, that made hand and bench screws. We have not previously seen any J. Hood measuring tools.
<http://www.davistownmuseum.org/pics/041505t32.jpg>
- 111900T9 **Double square** DTM
- Steel, 4" rule, signed "No 13", "The L.S.S. CO.", and "HARDENED NO 1".
The accompanying bevel blade is not available. DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. of Athol, MA.
<http://www.davistownmuseum.org/pics/111900T9.jpg>
<http://www.davistownmuseum.org/bioStarrett.htm>
- 22603T1 **Engine rule** DTM
- Steel, 36" long, 10" wide, 8" high, signed "DAVID W MANN COMPANY" and "102" on a paper label.
Follow the bio link to see the photographs of this tool. It is located in the Banks Garage, ask the person on duty for directions to find the tool and also the documentation in the CSET library.
<http://www.davistownmuseum.org/BioPics/Mann2.JPG>
<http://www.davistownmuseum.org/bioMann.html>
- 22211T12 **Folding rule** DTM
- Boxwood and brass, 24" long (extended), 6" long (folded), 5/8" wide, 1/8" thick, signed "STANLEY" "NEW BRITAIN" "CONN. U.S.A." and "No 7" on both sides.
This is a Stanley No. 7 rule. Part of the Robert Sullivan Collection donation.
<http://www.davistownmuseum.org/bioStanley.html>
- 22211T16 **Folding rule** DTM
- Boxwood and brass, 24" long (extended), 6" long (folded), 1/2" wide, 1/8" thick, signed "STANLEY No 62" "STANLEY RULE" "& LEVEL CO." "NEW BRITAIN, CONN." "USA" "WARRENTED" "BOXWOOD".
This is a Stanley No. 62 rule. Part of the Robert Sullivan Collection donation.
<http://www.davistownmuseum.org/bioStanley.html>
- 22211T9 **Folding rule** DTM
- Silver plated and possibly ivory, 12" long (extended), 3" long (folded), 5/16" wide, 1/8" thick, unsigned.
The body is probably a plastic composite made to mimic ivory. The metal is brass plated. Part of the Robert Sullivan Collection donation.

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22211T10	Folding rule	DTM
<p>Wood and brass, 12" long (extended), 3" long (folded), 5/16" wide, 1/8" thick, signed "No 65" on both sides. This is a Stanley No. 65 rule. Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStanley.html</p>		
22211T11	Folding rule	DTM
<p>Boxwood and brass, 12" long (extended), 3" long (folded), 5/16" wide, 1/8" thick, signed "No 70" on both sides. This is a Stanley No. 70 rule. Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStanley.html</p>		
22211T22	Folding rule	DTM
<p>Boxwood, 39.37" long, 5/8" wide, 3/32" thick, unsigned.</p> <p>This rule has a metric scale and is one meter long. Part of the Robert Sullivan Collection donation.</p>		
31908T35	Framing square	DTM
<p>Steel, 24" long, 14" wide, signed "S. HAYES" "PATENT" "WARRANTED" and "STEEL".</p> <p>There is no S. Hayes in DATM (Nelson, 1999).</p>		
83102T5	Gauge guide	DTM
<p>Paper mounted on board, unsigned.</p> <p>This gauge guide is printed on two sides and lists the following standards: USG (United States Standard Gauge), TDG (Twist Drill & Steel Wire Gauge), SWG (Stubs Wire Gauge), B&S (Brown & Sharpe or American Standard Wire Gauge), BWG (Birmingham or Stubs Iron Wire Gauge), NWG (National or Roebbling or Washburn & Moen Gauge) and MWG (Music Wire Gauge).</p>		
30101T1	Gear tooth vernier caliper	LPC MHC
<p>Steel in leather box, 4 1/15" long, 4 1/4" high, signed "Brown & Sharpe Mfg. Co. Providence RI USA 20.2DP".</p> <p>Representative of the florescence of the New England toolmaker and L. S. Starrett's principal 20th century competitor. The English measure caliper is an uncommon LBS product.</p> <p>http://www.davistownmuseum.org/pics/30101t1.jpg</p> <p>http://www.davistownmuseum.org/bioBrownSharpe.htm</p>		
72002T4	Height gauge	LPC MH-I
<p>Steel, 10" high, 6" scale, signed "L S Starrett Co. Athol Mass USA" "Athol Mass" "Made in USA" "No 354", 1900.</p> <p>A fine boxed example of a late classic period machinist tool formerly owned by the Raytheon Co.</p>		
30911T4	Hermaphrodite dividers	DTM
<p>Steel, 6" long, signed "W. C. HOWATT" hand-stamped owner's mark.</p>		
102501T1	Inclinometer level	LPC
<p>Cast steel and brass, 6" long, 14/16" wide, 2 1/2" high, 2" diameter meter, signed "DAVIS LEVEL & TOOL Co" and "PAT.SEP 17, 1867" with owner's signature "J.F. McCABE".</p> <p>This tool is also referred to as a mantle clock level. DATM (Nelson 1999, 214) has historical information on this company.</p> <p>http://www.davistownmuseum.org/pics/102501t1_p3.jpg</p> <p>http://www.davistownmuseum.org/bioDavis.htm</p>		
41302T11	Inside calipers	DTM
<p>Cast steel, 3 1/2" long, 1 3/8" wide when closed, signed "J. Stevens A & T Co. Chicopee Falls Mass PAT March 9 1886".</p> <p>These are finely made beveled spring calipers. Joshua Stevens, one of the principle tool manufacturers of the classic period, worked in Chicopee, MA, from 1864 to 1903. Numerous patents are listed, they changed their name to Stevens Arms & Tool Co. in 1886. This company had a close association with the Davis Level & Tool Co. of Springfield, MA (1875 - 1892) with respect to the R. Hathaway patented square (4 Dec. 1866). DATM (Nelson 1999) pg. 757 and 214.</p>		
111900T6	Inside calipers	DTM
<p>Steel, 2 3/4" long, signed "B.S. Mfg Co Prov. R.I. USA".</p> <p>Inside calipers is used to measure the diameter of a cylindrical hole. They have rounded tips that are bent away from each other.</p> <p>http://www.davistownmuseum.org/bioBrownSharpe.htm</p>		
111900T5	Inside calipers	DTM
<p>Steel, 5", signed "STARRETT ATHOL MASS USA".</p> <p>DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>		

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102503T2 **Inside calipers**

DTM

Steel, 9 1/8 " long, signed "D. E. LYMAN".

There is no D. Lyman listed in DATM (Nelson 1999). This heavy duty caliper -- the steel is unusually thick -- is almost certainly made by its owner for his own shop use. It predates the era of factory made tools -- its quality would not be practical to duplicate in a large production.

62202T8 **Inside calipers**

DTM

Malleable forged steel, 3 7/8" long, signed "Murphy".

No Murphy is listed by DATM (Nelson 1999) as a maker of calipers. Who was Murphy? Where and when did he make calipers? The style of the calipers is mid- to late-19th century.

<http://www.davistownmuseum.org/pics/62202t6.jpg>

TJG1001 **Lathe tool holder**

DTM

Drop forged iron? With steel cutter, 6" long with 2" long 1/4" cutter, signed "MACHINISTS TOOL CO PROV. R.I. PATENTED MAY 26, 1868".

This machine made tool is characteristic of the arrival of the era of mass produced hand tools.

92911T4 **Level**

DTM

Mahogany with brass ends, 30 1/4" long, 3 1/8" wide, 1 1/4" high, signed "STANLEY RULE & LEVEL CO" "NEW BRITAIN, CONN USA" "PAT FEB 18.90".

There are two spirit bubbles with adjustments and an adjusting screw.

<http://www.davistownmuseum.org/bioStanley.htm>

92911T5 **Level**

DTM

Rosewood with brass, 28" long, 3 3/8" wide, 1 5/16" high, signed "MILLIKEN & STACKPOLE" "BOSTON, MASS".

There are two spirit bubbles.

13102T1 **Level**

DTM

Rosewood and brass, 8" long, 1 " wide, signed "STRATTON BROTHERS GREENFIELD MASS" and "PATENTED JULY 16 1872 OCT 4 1887" and "No 10" on the end.

<http://www.davistownmuseum.org/pics/13102t1-3.jpg>

92911T3 **Level**

DTM

Rosewood and brass, 30" long, 3 3/8" wide, 1 3/8" high, signed "J. W. HARMON 65 HAVERHILL ST" in a circle with "BOSTON MASS." inside the circle.

It has two spirit bubbles. DATM (Nelson 1999, 355) indicates that John W. Harmon made levels and rules from 1860 to 1907. He had two patents.

92911T6 **Level**

DTM

Rosewood and brass, 24" long, 3 1/2" wide, 1 1/2" high, signed "H. M. POOL" "EASTON, MASS" and with an eagle and USA style shield.

Horace Minot Pool of Easton, MA was born July 9, 1803. He made levels and other scientific instruments from 1838 until his death on Nov. 1, 1878. He worked for awhile with his brother, John, signing tools "J. & H. M. POOL" and later with other brothers, Nahum and Harrison, as "Horace Minot Pool & Bros". (DATM 1999).

71903T9 **Level**

DTM

Cast iron and brass, 9" long, signed "L. S. Starrett & Co Athol Mass Pat Applied For".

This appears to be the first model of this particular size level.

92911T7 **Level**

DTM

Rosewood and brass with brass ends, 32" long, 3 1/2" wide, 1 1/2" high, signed "MCFERNALD" owner stamp on the brass ends. One spirit bubble.

92911T8 **Level**

DTM

Rosewood and brass, 26 1/4" long, 3" wide, 1 1/4" high, signed "STRATTON BROTHERS" "GREENFIELD, MASS" "PATENTED JULY 16, 1872" and with an eagle mark.

Edwin A. and Charles M. Stratton began their level business in 1869 (DATM 1999).

<http://www.davistownmuseum.org/bioStratton.html>

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41203T1	Line level	LPC
<p>Cast iron and brass, 3 1/2" long, signed "MANUFACTURED BY L.L. DAVIS SPRINGFIELD MASS" and "37 1/2". Leonard L. Davis made levels and planes in Springfield, MA, 1867-1875, before changing the name of his company to Davis Level & Tool Co. (1875 - 92). An excellent example of one of the most sought after pocket or line levels by one of the most distinguished manufacturers of the classic period of American machinists' tools.</p> <p>http://www.davistownmuseum.org/pics/41203t1_p2.jpg http://www.davistownmuseum.org/bioDavis.htm</p>		
41801T13	Machinists' rule	DTM
<p>Steel, 2 15/16" long, signed "HOPE & Co. PROV. R.I." on one side and "SPRING STEEL" on the other. DATM (Nelson 1999) lists Hope & Co. as making engraving machines in 1868. No mention is made of making any other tools. A rare find from the early years of the Industrial Revolution.</p>		
30311T10	Machinists' scale	DTM
<p>Steel, 10 1/2" long, 11/16" wide, 1/8" high, signed "Brown & Sharpe Mfg Co" "Providence, R.I. U.S.A." and with their trademark LBS.</p> <p>http://www.davistownmuseum.org/bioBrownSharpe.htm</p>		
63001T12	Machinists' square	DTM
<p>Steel, 2 5/8" long, 2 1/8" blade, signed "The LSS Co Athol Mass No 20". A classic example of Starrett's finest product. DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>		
JTS1001	Machinists' square	DTM
<p>Drop forged steel, 3" by 1 1/2", touchmark "JHM".</p>		
32708T62	Marking gauge	DTM
<p>Brass, rosewood, and metal plate, 7" long, unsigned.</p> <p>http://www.davistownmuseum.org/pics/32708t62-1.jpg</p>		
41801T10	Marking gauge	DTM
<p>Steel, 2 11/16" long, unsigned. This tiny machinists' gauge is highly unusual in its diminutive size. Probably owner-made.</p>		
31808SLP23	Marking gauge	DTM
<p>Mahogany with brass inlay, 9" long, signed "PAT. AUG. 5, 1873".</p> <p>http://www.davistownmuseum.org/pics/31808slp23-3.jpg http://www.davistownmuseum.org/pics/31808slp23-1.jpg</p>		
TJS2201	Measuring device	DTM
<p>Cast steel, 4 5/8" long, signed "STALL & ATHERTON BROCKTON, MASS". A very rare mark.</p>		
102503T1	Measuring gauge	DTM
<p>Steel, 7 3/8" long, with an 8" long velvet and leather case, signed "Boulet's Fine Tool Works Sebago Lakes Maine" "PAT OCT 2 1900 SEPT 10 1901 FEB 25 04". It also has an owner's mark in script "T. Keech". It is accompanied by three small attachments whose purpose is not clear.</p> <p>http://www.davistownmuseum.org/pics/102503t1a.jpg http://www.davistownmuseum.org/publications/volume10.html</p>		
31808SLP7	Mitre square	DTM
<p>Steel, brass, and wood, signed with obscured mark "____YN" and "____NE" and "CFW" on the handle.</p> <p>http://www.davistownmuseum.org/pics/31808slp7-1.jpg http://www.davistownmuseum.org/pics/31808slp7-2.jpg</p>		
31808SLP27	Mortising gauge	DTM
<p>Wood and brass, 8" long, 7" long gauge, unsigned.</p> <p>http://www.davistownmuseum.org/pics/31808slp27-1.jpg http://www.davistownmuseum.org/pics/31808slp27-2.jpg</p>		

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92911T2	Outside caliper	DTM
Cast steel, 24" long, signe "H BRINTON & CO".		
111900T4	Outside calipers	DTM
Steel, 5", signed "L S S Co. ATHOL MASS USA" with an owner's signature "M. E. Weed". DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm		
041505T35	Outside calipers	DTM
Steel, 8 5/8" closed, signed "H. A. ELLIS" and "J. P.". There is no H. A. Ellis in DATM (Nelson 1999). Possibly these are signed by the owner. http://www.davistownmuseum.org/pics/041505t35.jpg		
41801T1	Outside calipers	DTM
Steel, 4 1/2" long, signed "Athol Machine Co. Athol Mass. U.S.A.". Originally formed by Laroy Starrett in 1868, he sold Athol in 1878. It became a competitor to L.S. Starrett Co. and he purchased it back in 1905. In "about 1882 they [Athol] either bought or founded the Standard Tool Co. as an integral division making machinist tools." DATM (Nelson 1999) pg. 40. DATM (Nelson 1999) pg. 751 contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm		
32802T10	Outside calipers	DTM
Cast steel, 6" high, signed "W. E. TRUFANT Whitman Mass PAT Apr 18 03". This unusual caliper includes a small 4" scale welded to the casing. An extremely rare late classic period machinists' tool. The maker is not listed in DATM (Nelson 1999). Did Trufant not begin making tools until after 1900? http://www.davistownmuseum.org/pics/32802t10.jpg		
32802T1	Outside calipers	DTM
Steel, 4" high, signed "Pat. Jan 4 1887" with obscured maker's mark. The maker's mark would probably be: Davis Level & Tool Co. Springfield, Mass. http://www.davistownmuseum.org/pics/32802t10.jpg http://www.davistownmuseum.org/bioDavis.htm		
111900T8	Outside calipers	DTM
Steel, 2 3/4" long, signed "B.S. Mfg Co Prov. R.I. USA". http://www.davistownmuseum.org/bioBrownSharpe.htm		
111001T40	Parallels	DTM
Steel, 2 1/2" long, unsigned. A precision sculpture object from the classic period (or later) of the Industrial Revolution.		
102800T7	Pencil compass	DTM
Drop forged steel, 6 5/8" long, signed "WT. ATHERHEAD PATENT. REISSUED FEB 18 187?". No such patent is listed in the patent annex of DATM (Nelson 1999) for any years of the 1870's, nor is any Atherhead listed in DATM. This makers imprint has never been noted before. http://www.davistownmuseum.org/pics/51100t6.jpg		
102904T21	Radius gauge	DTM
Steel, 10 1/2" wide, 6" diameter swivel, 7 1/2" high gauge on 5 1/2" x 3" raised platform, signed "VINCOTOOL CO." "DETROIT MICH." "PAT. JUNE 5-1934" "PAT. NO. 1961242" "Set diamond from this face" on gauge post. An interesting and rare sculpture object from the post-classic period of the Industrial Revolution. One of the most modern tools in the museum's collection. http://www.davistownmuseum.org/pics/102904t21_p1.jpg		
102100T18	Rule	DTM
Cast steel, 6" long, signed "J. R. BROWN & SHARPE PROVIDENCE R. I. U,S, ST'D". This signature preceeds the later B S Mfg. Co. (Brown and Sharpe). http://www.davistownmuseum.org/bioBrownSharpe.htm		

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111900T1	Rule	DTM
<p>Steel, 12" long, signed "L.S. STARRETT ATHOL MASS USA TEMPERED No 4". DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm</p>		
111001T5	Rule	DTM
<p>Cast steel, 12" long, marked "Tool Co" with a star and also marked "Spring Steel". The star is the signature of the Star Tool Co. DATM (Nelson 1999) lists Star Tool Co. in Middletown, CT, 1867-1883 with another location in Providence, Rhode Island (1870-71). It manufactured bevels, levels, marking gauges and squares.</p>		
102800M11	Rule	DTM MHC-K
<p>Steel, signed "DB&S" and by owners "W.F. Blake" and "W. Cross". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>		
52603T3	Ruler	DTM
<p>4" long, signed "UNION CALIPER. Co" "Orange Mass" "Tempered No. 4". DATM (Nelson 1999) lists this company's working dates as 1908-1916, manufacturing machinist's tools.</p>		
31808SLP19	Sliding T bevel	DTM
<p>Steel blade, brass trim, and rosewood handle, 6" long, 4 1/2" long handle, signed "MADE IN U.S.A.". http://www.davistownmuseum.org/pics/31808slp19-1.jpg http://www.davistownmuseum.org/pics/31808slp19-2.jpg</p>		
31808SLP18	Sliding T bevel	DTM
<p>Steel blade, brass trim, and laquered rosewood handle, 10" long, 6 5/8" long handle, signed "STANLEY" "RULE & LEVEL Co" "NEW BRITAIN. CONN" "U.S.A." and "PAT. 9-6-04". http://www.davistownmuseum.org/pics/31808slp18-1.jpg http://www.davistownmuseum.org/bioStanley.htm</p>		
22311T21	Spirit level	DTM
<p>Mahogany and brass, 30" long, 3 1/2" wide, 1 1/4" thick, signed "MANUFACTURED BY L. L. DAVIS" "SPRINGFIELD, MASS." "PAT. MARCH 17, 1867". Part of the Robert Sullivan Collection donation. http://www.davistownmuseum.org/bioDavis.htm</p>		
52603T35	Spring caliper	DTM
<p>5 3/16" long, 4" wide, signed "SAWYER".</p>		
TJR2203	Square	DTM
<p>Cast iron or steel, 12" x 8", illegible mark.</p>		
11301T3	Square	DTM
<p>Steel, 15 5/8" long, 1 7/8" wide with a 7 1/2" arm extended to 8 1/4" wide at blade joint, signed "J B Jopson". No Jopson is listed in DATM (Nelson 1999). Could this be an owner's mark?</p>		
31611T4	Square	DTM
<p>Cast steel, 12" long by 7" long, 1/8" wide, signed "'SAFFORD". The blades are tapered. The longer one is stamped with numbers.</p>		
111900T3	Surface gauge	DTM
<p>Steel, 2 1/8" x 1 7/16" base, 4 3/8" arm, unsigned. An essential component of the tool kit of the tool and die maker, constructor of the machines that then made other tools.</p>		

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21201T12	Surface gauge	DTM
<p>Steel, 1 1/2" long, 1 9/16" wide, 1 3/8" high, signed "V Oby".</p> <p>Veikko Arne Oby (b. Worcester, MA 1916, d. 2/25, 2000), of Finnish descent, worked in Whitinsville, MA, and the Watertown Arsenal. This satin steel surface gauge, though not signed by its manufacturer, is similar to L.S. Starrett Toolmaker's surface gauge model 56A with 4" spindles. A contemporary L.S. Starrett catalog indicates this tool "is used in layout work for scribing lines on vertical or horizontal surfaces. A groove in the base adapts it for use on cylindrical as well as flat surfaces." This exquisite tool is a late example of the florescence of the classic period of American machinists' tools and is indicative of a proud machinists' careful use of a finely crafted Starrett tool or his meticulous reproduction of the same tool -- a possibility since Starrett surface gauges are rarely unsigned. Every hand tool has its own inscrutable history of manufacture and use.</p> <p>http://www.davistownmuseum.org/pics/21201t12.jpg http://www.davistownmuseum.org/bioOby.htm</p>		
41203T4	Surface gauge	LPC
<p>Steel, 4 1/8" long arm with a 1 7/16" wide by 2 3/8" long bar, signed "J. Stevens A & T Co" "Chicopee Falls Mass USA".</p> <p>A classic example of the exquisite workmanship of the classic period of American machinist tools.</p> <p>http://www.davistownmuseum.org/pics/41203t4_p3.jpg</p>		
041505T33	T square	DTM
<p>Steel and brass, 7 1/2" long, 3 1/2" wide, signed "C. EGGE".</p> <p>Maker C. Egge was a Boston toolmaker and inventor of die engineering equipment, ca. 1880s. He is not listed in DATM (Nelson 1999). This tool was purchased in Worcester, MA, by Liberty Tool Co. in March, 2005, from a descendent of one of his customers for die engineering equipment (C. D. Evan Co, Allston, MA) who fondly recalled the man who made this one-of-a-kind tool.</p> <p>http://www.davistownmuseum.org/pics/041505t33.jpg</p>		
101701T7	Tap drill gauge	DTM
<p>Cast steel, 4 1/2" long, signed "Made by STERLING ELLIOTT NEWTON, MASS, USA", 1890 - 1910.</p> <p>No such company is listed in DATM (Nelson 1999) but it does list "Elliott" as the maker of a tap drill gauge with a date of 1895 and no other information. The curator was born in Newton, MA, and after 31 years in the tool business, has never seen this marking before. A very rare signature. The sizes 2 - 24 appear hand stamped, they are slightly off center.</p>		
41302T5	Tapered gauge	DTM
<p>Steel, 6 1/8" long, 7/16" wide, signed "N. 270 The L. S. Starrett Co. Athol, Mass USA".</p> <p>Calibrated in millimeters and in hundredths of an inch. The maximum thickness this gauge measures is 0.150 inches. DATM (Nelson 1999) pg. 751 contains historical information on L. S. Starrett Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>		
914108T2	Thickness gauge	DTM
<p>Steel, 6 1/2" long, 6" long blades, signed "EINAR HANSON" "-TOOLS-" "WORCHESTER. MASS" and owner's mark "F. W. PAGE".</p> <p>Folded inside are 8 blades marked: 2, 3, 4, 6, 8, 10, 12, and 18.</p>		
41801T15	Tool and die makers' jig	DTM
<p>Steel, unsigned.</p> <p>Was this owner made? It was acquired along with the marking gauge (41801T10).</p>		
101701T15	Tool and diemakers' square	DTM
<p>Steel, 1 1/2" long, signed "Sawyer Tool Mfg Co Fitchburg Mass USA Hand", between 1894 - 1912.</p> <p>This exquisite tool was made before this company moved to Ashburnham, MA in 1912. They later became the Almond Mfg. Co. in 1915 (Nelson 1999, 692). This tool illustrates the beauty and durability of hardened case steel.</p>		
TJG1003	Toolmakers' buttons	DTM
<p>Metal, 4 1/2" long, signed "STARRETT ATHOL MASS NO. 494-D".</p> <p>DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>		
111900T13	Toolmakers' buttons	DTM
<p>Steel, 2 5/16" long, signed "Starrett Athol Mass USA No 494.B".</p> <p>DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>		

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100400-8 **Trisquare**

DTM MHC-K

Drop forged steel(?), Brass, and rosewood, 7 1/2" long, 5 1/4" high, signed "S A JONES & CO HARTFORD CON".
DATM (Nelson 1999, 430) lists Solomon A. Jones & Co. in Hartford, CT, 1838-1841 as making bevels, marking gauges, rules, and squares.

22311T14 **Try square**

DTM

Steel scale, brass, rosewood handle, 6" long, 4" wide, signed "WINCHESTER" "TRADE MARK" "MADE IN U.S.A." and "9715".
Part of the Robert Sullivan Collection donation.

72002T8 **Wire gauge**

DTM MH-I

Cast steel, signed "Lacene Mfg Co. Manchester NH".
Was this wire gauge made after 1900? If not a wire gauge, what is it?

22411T28 **Wire gauge**

DTM

Steel plate, 5 1/4" long, 1 5/8" wide, signed "E. W. SIMMONS".
It appears to be hand stamped.

Miscellaneous Items

102800M **Machinists' tool box**

DTM MH-K

Wood, brass and steel, 22 3/4" long, 12 1/2" wide, 10 3/4" high, signed by owner "W.F. Blake".
A piece of Maine history, this tool box was formerly owned by Ken Milliken, Lincolnville, ME. Blake was once one of the chief machinists for the Knox Engine Co.

<http://www.davistownmuseum.org/bioKnoxEngine.htm>

Miscellaneous Tools

041505T38 **Die**

DTM

Steel, 2 5/16" by 2 5/16" top, 2 3/4" high, signed "G. S. PAGET" "CO." "-BOSTON-" and "WOOD".
The die stamps: "ALBEMARLE" "GOLF CLUB" "INCORPORATED 1800" and has a thistle mark. There is no Paget listed in DATM (Nelson 1999). This die was formerly owned by C. D. Evans Co. of Allston, MA, a button maker from Boston. Our curator grew up just down the street from the Albemarle golf course in Newtonville, MA.

http://www.davistownmuseum.org/pics/041505T38_p2.jpg

http://www.davistownmuseum.org/pics/041505T38_p1.jpg

30202T7 **Machinist jack**

DTM

Steel, 4 7/8" long, extends to 8", unsigned.
Probably this is a home shop made tool.

30202T13 **Tap stock**

DTM

Steel, 5 1/2" long, signed "Card US No 0".
This diminutive tool is a product of one of New England's most important late classic period manufacturer's of taps, dies and related tools. DATM (Nelson 1999) lists S. W. Card Mfg. Co., which was located in Mansfield, MA, as operating between 1874 - 1908 before being bought out by the Union Twist Drill Co. of Athol. The factory building in Mansfield still stands.

<http://www.davistownmuseum.org/pics/30202t13.jpg>

<http://www.davistownmuseum.org/bioCard.htm>

11301T10 **Tapping stock**

DTM

Cast steel, 4 1/2" long, signed "S. W. Card Mansfield Mass".

<http://www.davistownmuseum.org/bioCard.htm>

Other Woodworking Tools

30911T1 **Parting tool**

DTM

Cast steel, brass ferrule, and wood handle, 13" long, 6" blade, signed "J. M. McPHAIL" "1889".
A parting tool is used to cut grooves in a spindle while it is truning. It gets its name from the tool's ability to remove finished "parts".

Shipwrights' and Mariners' Tools

032203T7 **Wire gauge**

Status: Location
DTM

Steel, 3 1/2" diameter, signed "J. R. BROWN & SHARPE" "PROVIDENCE R.I." "STANDARD WIRE GAUGE" with bird trademark and "BS TRADE MARK".

The Directory of American Toolmakers (Nelson 1999) lists J. R. Brown, a predecessor of Brown & Sharpe, as working from 1853 - 1866, but continuing to use this mark after that date on some tools. This is a typical tool in the increasingly complex tool kit of a c. 1880 shipyard worker.

http://www.davistownmuseum.org/pics/032203T7_p3.jpg

<http://www.davistownmuseum.org/bioBrownSharpe.htm>