

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. An important 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 ports 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>

Agricultural Implements

3912NOM1 **Mushroom doweling drill bit** DA TT

Tool steel, 6" long, 5/8" wide, depth stop is 3/4" diameter, unsigned.

This twist drill bit with a depth stop is specifically designed for drilling holes into damp hardwood for the insertion of wood dowels inoculated with mushroom spawn into logs for agricultural purposes. Courtesy of Liberty Tool Co.

Blacksmith, Farrier, and Metalworking Tools

041505T38 **Die** DTM MH

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 MH

Steel, 4 7/8" long, extends to 8", unsigned.

Probably this tool was made in a home shop.

30202T13 **Tap stock** DTM MH

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 MH

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

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

Machinists' Tools

33112T1 **Die stock** DTM TT

Cast steel, 7 3/4" long, 2 1/2" wide, signed "Wiley and Russell, MFG, CO." "Greenfield, MASS." "PAT. Aug 5, 1884" and "7/16, 1/32, 14".

The working dates for this company are from 1872 - 1912. Then they became part of the Greefield Tap and Die Corp. This patent was assigned to them by Albert J. Smart of Greenfield. It may be viewed at:

http://www.google.com/patents?id=LWZAAAAAEBAJ&pg=PA2&dq=Aug+5,+1884+die+stock&hl=en&sa=X&ei=g6SZT7PxCMeZ0QWz_oDmBQ&ved=0CDIQ6AEwAA#v=onepage&q=Aug%205%2C%201884%20die%20stock&f=false

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

62202T7 **V block** DTM MH

Steel and brass, 1 1/2" long, 1" wide, unsigned.

This is a fine example of the work of a tool and die maker who needed a tiny V block for work on miniatures. It was made by the machinist for a specific use.

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

5412LTC7 Wing calipers

DA TT

Forged steel, 5" long, signed "BEMIS & CALL".
Courtesy of Liberty Tool Co.

Measuring Tools

Up until the 1850s foundries producing machinery for the burgeoning Industrial Revolution manufactured their own hand tools, otherwise hand tools were made by specialized, usually local, blacksmiths and toolmakers. 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.

10910T2 Adjustable calipers

DTM MH

Tool steel, 5" long x 2 3/4" wide, signed PAT.FEB. 14, 1888; STEVENS A. & T. CO. **** FALLS, MA; F.A. SKELTON (owner's mark), c. 1888.

The unreadable portion of the signature should be "Chicopee Falls". Donated by the Swenson family.

<http://www.davistownmuseum.org/pics/10910t2web2.jpg>

<http://www.davistownmuseum.org/pics/10910t2web1.jpg>

10910T3 Adjustable calipers

DTM MH

Tool steel, 3 1/8" long, 2" wide, signed PAT'D. FEB 14, 1888; J. STEVENS A. & T. Co. CHICOPEE FALLS, MASS, c. 1888.

Donated by the Swenson family.

<http://www.davistownmuseum.org/pics/10910t3web1.jpg>

<http://www.davistownmuseum.org/pics/10910t3web2.jpg>

21201T11 Adjustable calipers

DTM MH

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 MH

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

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

101701T16 Adjustable die stock

DTM MH

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?

51100T14A Adjustable die stocks (2)

DTM MH

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.

42602T6 Adjustable dividers

DTM MH

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.

83102T9 Adjustable dividers

DTM MH

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).

Davistown Museum Inventory of Tools - Industrial Revolution - Machinists

Measuring Tools

Status Location

81101T18A	Adjustable dividers	DTM	MH
<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, 610). This is an excellent example of the quality of a major producer of tools during the florescence of the classic period of American machinist tools.</p>			
22211T19	Architects' scale	DTM	TT
<p>Boxwood, 12 3/4" long, 7/8" wide, signed "U.S. ST'D". Part of the Robert Sullivan Collection donation.</p>			
22211T23	Architects' scale	DTM	TT
<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	MH
<p>Cast steel, 3 1/8" long, unsigned.</p>			
30202T6	Bevel square	DTM	MH
<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 (1993) 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>			
102100T2	Calipers	DTM	MH
<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>			
102800M3	Calipers	DTM	MHC-K
<p>Steel, 11 3/4" long, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102800M4	Calipers	DTM	MHC-K
<p>Steel, 9 1/4" long, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
102100T3	Calipers	DTM	MH
<p>Cast steel and brass, 3" long, unsigned.</p>			
102800M5	Calipers	DTM	MHC-K
<p>Steel, 6" inside, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
31908T29	Calipers	DTM	MH
<p>Steel, 7 1/2" long, signed "C DELSTEN & SON" and "C & S".</p>			
090508T4A	Calipers	DTM	MH
<p>Steel, 5 1/2" long, signed "GEO. PLUMPTON" with an X trademark.</p>			
102800M6	Calipers	DTM	MHC-K
<p>Steel, 6" outside, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm</p>			
121805T26	Calipers	DTM	MH
<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>			

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Measuring Tools

Status Location

102800M7	Calipers	DTM	MHC-K
Steel, 6" outside, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm			
102800M8	Calipers	DTM	MHC-K
Steel, 5" long, signed by owner "W.F. Blake". http://www.davistownmuseum.org/bioKnoxEngine.htm			
111001T4	Calipers	DTM	MH
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. This is an exceedingly rare signature on a caliper.			
102800M2	Calipers	DTM	MH
Drop-forged steel, 13 1/2", unsigned.			
TJR3001	Calipers	DTM	MH
Drop-forged iron or steel, 10 1/2" long, unsigned.			
032203T9	Calipers	DTM	MH
Steel and brass, 3" long, signed "J. STEVENS A & T, CO." "FEALDEN", c. 1886. This is an exquisite example of the fine work of J. Stevens Co. http://www.davistownmuseum.org/pics/032203t9_p2.jpg			
111900T14	Center finder	DTM	MH
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			
22512LTC4	Combination square with center head and reversible protractor head	DA	TT
Drop-forged tempered alloy steel, glass, satin and japanned finish, 18" long, signed "BROWN & SHARPE PROVIDENCE R.I. TEMPERED NO. 4" and on center head "PATENT 2085481". Courtesy of Liberty Tool Co. http://www.davistownmuseum.org/bioBrownSharpe.htm			
091608T2	Compass	DTM	MH
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.			
22311T2	Compass	DTM	TT
Drop-forged tempered alloy steel, 7 1/2" long, signed in a circle "W. SCHOLLHORN NEW HAVEN, CT." and "PAT. APPLD. FOR" "3" on one leg and owner mark "G.A.O." on other leg. Part of the Robert Sullivan Collection donation.			
TCP1005	Compass	DTM	MH
Forged iron, 5 1/2" long, signed "THEWLIS & CO" and "BOOTH BROTHERS DUBLIN". DATM (Nelson 1999, 782) lists Thewlis & Co. as a maker of a small machinists' square, Boston, 1885. This compass has an 18th century English pattern with a later style manufacturer's signature.			
32708T46	Compass/caliper/divider	DTM	MH
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			

Davistown Museum Inventory of Tools - Industrial Revolution - Machinists

Measuring Tools

Status Location

22512LTC9 **Depth gauge micrometer**

DA TT

Drop-forged tempered alloy steel, 4" long, 4" wide, 1/2" high, signed "Starrett" "No. 445".

This was found in a case with 3 of the original 6 attachments and tuning wrench. Courtesy of Liberty Tool Co.

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

81602T16 **Dividers**

DTM MH

Drop-forged steel, 11 7/8" long, signed "P. PETERS. NATICK MASS.".

The letters of the name are difficult to read. DATM (Nelson 1999) lists Patrick F. Peter (or Peters) in Natick as having a Jan. 22, 1878 patent for a cobblers' last hammer.

http://www.davistownmuseum.org/pics/81602T16_p2.jpg

http://www.davistownmuseum.org/pics/81602T16_p3.jpg

111900T7 **Dividers**

DTM MH

Steel, 3 3/8" long, signed "B.S. Mfg Co Prov. R.I. USA".

This is made by 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>

111900T12 **Dividers**

DTM MH

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>

31811T11 **Dividers**

DTM TT

Drop-forged tempered alloy steel, 9" long, 5/16" wide, signed "OLDENBURG" and the James Swan trademark..

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

121201T2 **Dividers**

DTM MH

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. It was 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.

1302T3 **Dividers**

DTM MH

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.

122002T1 **Dividers**

DTM MH

Steel, 4" long, signed "Stevens & Co.".

DATM (Nelson 1999, 757) contains historical information on Joshua Stevens & Co.

032203T8 **Dividers**

DTM MH

Steel and brass, 9 3/4" long, signed "J STEVENS A & T CO. Chicopee Falls Mass USA".

J. Stevens began making calipers and dividers in 1864. They changed their name to J. Stevens Arms & Tool Co. in 1886. These high quality American-made dividers are typical of American-made tools appearing in tool kits at this time.

http://www.davistownmuseum.org/pics/032203t8_p2.jpg

041505T32 **Double calipers**

DTM MH

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 MH

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>

Davistown Museum Inventory of Tools - Industrial Revolution - Machinists

Measuring Tools

Status Location

22603T1	Engine rule	DTM	OM
<p>Steel, 36" long, 10" wide, 8" high, signed "DAVID W MANN COMPANY" and "102" on a paper label.</p> <p>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.</p> <p>http://www.davistownmuseum.org/BioPics/Mann2.JPG http://www.davistownmuseum.org/bioMann.html</p>			
22211T16	Folding rule	DTM	TT
<p>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".</p> <p>This is a Stanley No. 62 rule. Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStanley.html</p>			
22211T22	Folding rule	DTM	TT
<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>			
22211T12	Folding rule	DTM	TT
<p>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.</p> <p>This is a Stanley No. 7 rule. Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStanley.html</p>			
22211T11	Folding rule	DTM	TT
<p>Boxwood and brass, 12" long (extended), 3" long (folded), 5/16" wide, 1/8" thick, signed "No 70" on both sides.</p> <p>This is a Stanley No. 70 rule. Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStanley.html</p>			
22211T9	Folding rule	DTM	TT
<p>Silver plated and possibly ivory, 12" long (extended), 3" long (folded), 5/16" wide, 1/8" thick, unsigned.</p> <p>The body is probably a plastic composite made to mimic ivory. The metal is brass plated. Part of the Robert Sullivan Collection donation.</p>			
22211T10	Folding rule	DTM	TT
<p>Boxwood and brass, 12" long (extended), 3" long (folded), 5/16" wide, 1/8" thick, signed "No 65" on both sides.</p> <p>This is a Stanley No. 65 rule. Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStanley.html</p>			
83102T5	Gauge guide	DTM	MH
<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>This tool is representative of the florescence of the New England toolmaker and is made by L. S. Starrett's principal 20th century competitor. The English measure caliper is an uncommon Brown & Sharpe product.</p> <p>http://www.davistownmuseum.org/pics/30101t1.jpg 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>This is a fine boxed example of a late classic period machinist tool formerly owned by the Raytheon Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>			
30911T4	Hermaphrodite dividers	DTM	TT
<p>Drop-forged tempered alloy steel, 6" long, signed "W. C. HOWATT" hand-stamped owner's mark.</p>			

Davistown Museum Inventory of Tools - Industrial Revolution - Machinists

Measuring Tools

Status Location

102501T1 **Inclinometer level**

LPC MH

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".

This tool is also referred to as a mantle clock level. DATM (Nelson 1999, 214) has historical information on this company.

http://www.davistownmuseum.org/pics/102501t1_p3.jpg

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

111900T6 **Inside calipers**

DTM MH

Steel, 2 3/4" long, signed "B.S. Mfg Co Prov. R.I. USA".

Inside calipers are used to measure the diameter of a cylindrical hole. They have rounded tips that are bent away from each other.

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

102503T2 **Inside calipers**

DTM MH

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.

111900T5 **Inside calipers**

DTM MH

Steel, 5", signed "STARRETT ATHOL MASS USA".

DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co.

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

62202T8 **Inside calipers**

DTM MH

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>

41302T11 **Inside calipers**

DTM MH

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".

These are finely made beveled spring calipers. Joshua Stevens, one of the principal 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 Hathaway patented square (4 Dec. 1866). (Nelson 1999, 757, 214).

22712LTC1 **Inside micrometer calipers**

DA TT

Drop-forged tempered alloy steel, 4 3/4" long, 1 1/4" wide, 4 3/4" high, signed "THE L.S. STARRETT CO. ATHOL, MASS. U.S.A.". This is the No. 124 set. Courtesy of Liberty Tool Co.

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

TJG1001 **Lathe tool holder**

DTM MH

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.

92911T3 **Level**

DTM MH

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 MH

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).

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92911T8	Level	DTM	MH
<p>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.</p> <p>Edwin A. and Charles M. Stratton began their level business in 1869 (DATM 1999).</p> <p>http://www.davistownmuseum.org/bioStratton.html</p>			
120907T2	Level	DTM	TT
<p>Wrought iron and brass, 24" long, 2 3/4" wide, signed "DAVIS LEVEL & TOOL Co" and "PAT SEP 17, 1867".</p> <p>It has an intricately worked body and an adjustable dial with 90 degrees of movement.</p> <p>http://www.davistownmuseum.org/pics/120907t2_p2.jpg</p> <p>http://www.davistownmuseum.org/bioDavis.htm</p>			
92911T7	Level	DTM	MH
<p>Rosewood and brass, 32" long, 3 1/2" wide, 1 1/2" high, signed "MCFERNALD" owner stamp on the brass ends.</p> <p>One spirit bubble.</p>			
13102T1	Level	DTM	MH
<p>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.</p> <p>http://www.davistownmuseum.org/pics/13102t1-3.jpg</p>			
041712T1	Level	DTM	TT
<p>Steel, glass, 12" long, 3/4" wide, 1 7/8" high, signed "THE L.S.S. Co. ATHOL MASS U.S.A.". This machinists' level dates from 1940 - 1950.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>			
92911T4	Level	DTM	MH
<p>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".</p> <p>There are two spirit bubbles with adjustments and an adjusting screw.</p> <p>http://www.davistownmuseum.org/bioStanley.htm</p>			
71903T9	Level	DTM	MH
<p>Cast iron and brass, 9" long, signed "L. S. Starrett & Co Athol Mass Pat Applied For".</p> <p>This appears to be the first model of this particular size level.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>			
72002T2	Level	DTM	MH
<p>Wood (cherry?), 12" long, 1" wide, signed "E. T. BURROWES CO." "PORTLAND, ME." on brass plate, 1910 (?).</p> <p>This is a mundane late example of an everyday household tool made by one of Maine's most prolific toolmakers.</p> <p>http://www.davistownmuseum.org/pics/72002t2_p1.jpg</p> <p>http://www.davistownmuseum.org/publications/volume10.html</p>			
92911T5	Level	DTM	MH
<p>Rosewood with brass, 28" long, 3 3/8" wide, 1 5/16" high, signed "MILLIKEN & STACKPOLE" "BOSTON, MASS".</p> <p>There are two spirit bubbles.</p>			
41203T1	Line level	LPC	MH
<p>Cast iron and brass, 3 1/2" long, signed "MANUFACTURED BY L.L. DAVIS SPRINGFIELD MASS" and "37 1/2".</p> <p>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). This is 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</p> <p>http://www.davistownmuseum.org/bioDavis.htm</p>			
22512LTC8	Machinists' drill and wire gauge	DA	TT
<p>Drop-forged tempered alloy steel, 6 1/4" long, 2 5/16" wide, signed "TIME SAVER. DRILL & WIRE GAUGE. CHART FOR MACHINE SCREW TAPS. THE L.S. STARRETT CO. ATHOL, MASS. U.S.A. No. 186".</p> <p>Courtesy of Liberty Tool Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>			

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22311T1	Machinists' level	DTM	TT
<p>Drop-forged tempered alloy steel, 12 1/4" long, 2 3/4" wide, 1 1/2" deep, signed "THE L.S.STARRETT Co" "ATHOL, MASS. U.S.A." with a border.</p> <p>Part of the Robert Sullivan Collection donation.</p> <p>http://www.davistownmuseum.org/bioStarrett.html</p>			
41801T13	Machinists' rule	DTM	MH
<p>Steel, 2 15/16" long, signed "HOPE & Co. PROV. R.I." on one side and "SPRING STEEL" on the other.</p> <p>DATM (Nelson 1999) lists Hope & Co. as making engraving machines in 1868. No mention is made of making any other tools. This is a rare find from the early years of the Industrial Revolution.</p>			
30311T10	Machinists' scale	DTM	TT
<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>			
3912LTC2	Machinists' scale set	DA	TT
<p>Stainless steel blades, tempered alloy steel handle, 4" long handle, 1" long and 3/4" long blades, unsigned.</p> <p>This handle and set of small ruler blades is used for making precise measurements in a confined space. Courtesy of Liberty Tool Co.</p>			
22512LTC7	Machinists' small hole gage gauges	DA	TT
<p>Drop-forged tempered alloy steel, vinyl pouch, 2" long, signed "Starrett NO. S830F SMALL HOLE GAGES" "THE L.S. STARRETT CO. ATHOL, MASS. U.S.A.".</p> <p>This is a set of 5 small hole gauges in a red vinyl pouch that measure from 0.125" to 0.500". Courtesy of Liberty Tool Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>			
JTS1001	Machinists' square	DTM	MH
<p>Drop-forged steel, 3" by 1 1/2", signed with the touchmark "JHM".</p>			
63001T12	Machinists' square	DTM	MH
<p>Steel, 2 5/8" long, 2 1/8" blade, signed "The LSS Co Athol Mass No 20".</p> <p>This is 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>			
22512LTC5	Machinists' wiggler center finder set	DA	TT
<p>Drop-forged tempered alloy steel, vinyl pouch, 2 1/2" long pieces, signed "THE L.S. STARRETT CO. ATHOL, MASS. U.S.A. NO 828".</p> <p>This set includes the handle and four attachments for finding centers in a red vinyl pouch. Courtesy of Liberty Tool Co.</p> <p>http://www.davistownmuseum.org/bioStarrett.htm</p>			
41801T10	Marking gauge	DTM	MH
<p>Steel, 2 11/16" long, unsigned.</p> <p>This tiny machinists' gauge is highly unusual in its diminutive size. Probably it was owner-made.</p>			
TJS1302	Measuring device	DTM	MH
<p>Drop-forged steel, 2 1/4" long, 1 1/2" wide, signed "COFFIN & LEIGHTON SYRACUSE NY".</p> <p>DATM (Nelson 1999, 177) lists Coffin & Leighton as located in Syracuse, NY from 1885 - 1901. Herbert Leighton patented a combination vernier, bevel, and square 17 Jan. 1893 and a machinists' rule 25 Aug 1885 by both he and John Coffin. In 1902 they sold their business to the Goodell Pratt Co.</p>			
TJS2201	Measuring device	DTM	MH
<p>Cast steel, 4 5/8" long, signed "STALL & ATHERTON BROCKTON, MASS".</p> <p>Perhaps this mark is Snell & Atherton who made leather tools in Brockton, MA?</p>			
102503T1	Measuring gauge	DTM	MH
<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".</p> <p>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</p> <p>http://www.davistownmuseum.org/publications/volume10.html</p>			

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31808SLP7	Mitre square	DTM	TT
Steel, brass, and wood, signed with obscured mark "____YN" and "____NE" and "CFW" on the handle.			
http://www.davistownmuseum.org/pics/31808slp7-1.jpg			
http://www.davistownmuseum.org/pics/31808slp7-2.jpg			
111900T4	Outside calipers	DTM	MH
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	MH
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	MH
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, 40). DATM contains historical information on L. S. Starrett Co.			
http://www.davistownmuseum.org/bioStarrett.htm			
92911T2	Outside calipers	DTM	MH
Drop-forged tempered alloy steel, 24" long, signed "H BRINTON & CO".			
111900T8	Outside calipers	DTM	MH
Steel, 2 3/4" long, signed "B.S. Mfg Co Prov. R.I. USA".			
http://www.davistownmuseum.org/bioBrownSharpe.htm			
32802T1	Outside calipers	DTM	MH
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. It might be patent 355,430			
http://www.google.com/patents?id=w1BmAAAAEBAJ&pg=PA2&dq=jan+4+1887+caliper&hl=en&sa=X&ei=Fb90T6PtOOrU0QX1kcnyAQ&ved=0CD0Q6AEwAA#v=onepage&q=jan%204%201887%20caliper&f=false			
http://www.davistownmuseum.org/pics/32802t10.jpg			
http://www.davistownmuseum.org/bioDavis.htm			
32802T10	Outside calipers	DTM	MH
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. It is an extremely rare late classic period machinists' tool. The patent is 726,287 of April 28, 1903, assigned to Walter E. Trufant by Frank A. Hatch of Hanson, MA.			
Http://www.google.com/patents?id=0X9aAAAAEBAJ&pg=PA2&dq=trufant+apr++caliper&hl=en&sa=X&ei=vMF0T_ngNoyt8QPR00xD&sqi=2&ved=0CDIQ6AEwAA#v=onepage&q=trufant%20apr%20%20caliper&f=false			
http://www.davistownmuseum.org/pics/32802t10.jpg			
111001T40	Parallels	DTM	MH
Steel, 2 1/2" long, unsigned.			
This is a precision sculpture object from the classic period (or later) of the Industrial Revolution.			
102800T7	Pencil compass	DTM	MH
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	MH
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.			
This is an interesting and rare sculpture object from the post-classic period of the Industrial Revolution. It is one of the most modern tools in the museum's collection.			
http://www.davistownmuseum.org/pics/102904t21_p1.jpg			

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Status Location

- 102100T18 **Rule** DTM MH
Cast steel, 6" long, signed "J. R. BROWN & SHARPE PROVIDENCE R. I. U,S, ST'D".
This signature precedes the later B S Mfg. Co. (Brown and Sharpe).
<http://www.davistownmuseum.org/bioBrownSharpe.htm>
- 041505T31 **Rule** DTM MH
Steel, 6", signed "Fleming" in script and "U. S. A." and "Fleming Machine Co." "Worcester, Mass" and "No. 1334".
Black & Decker purchased Fleming Machine Co. of Worcester in 1929 (<http://www.fundinguniverse.com/company-histories/The-Black-amp;-Decker-Corporation-Company-History.html>).
http://www.davistownmuseum.org/pics/041505t31_p1.jpg
http://www.davistownmuseum.org/pics/041505t31_p2.jpg
- 102800M11 **Rule** DTM MHC-K
Steel, signed "DB&S" and by owners "W.F. Blake" and "W. Cross".
<http://www.davistownmuseum.org/bioKnoxEngine.htm>
- 111001T5 **Rule** DTM MH
Cast steel, 12" long, signed "Tool Co" with a star and also marked "Spring Steel".
The star is the touchmark 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 bevells, levels, marking gauges, and squares.
- 111900T1 **Rule** DTM MH
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>
- 52603T3 **Ruler** DTM MH
Steel, 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.
- 22512LTC1 **Set of 3 calipers (inside, outside, and dividers)** DA TT
Drop-forged tempered alloy steel, 9" long (all three), signed "THE L.S. STARRETT CO. ATHOL, MASS. U.S.A.".
This set includes inside and outside diameter measurement calipers and one set of dividers. Courtesy of Liberty Tool Co.
<http://www.davistownmuseum.org/bioStarrett.htm>
- 10910T6 **Shrink rule (9)** DTM MH
Tempered alloy steel, 12" long, 1" wide, signed THE L.S.S. CO. ATHOL, MASS. U.S.A.; No. 377; TEMPERED No 4; SHRINK 1-4 TO FOOT, c. 1950.
Donated by the Swenson family.
<http://www.davistownmuseum.org/pics/10910t6web3.jpg>
<http://www.davistownmuseum.org/bioStarrett.htm>
- 5412LTC6 **Shrinkage rule** DA TT
Boxwood, brass, 24 1/4" long unfolded, 1 15/16" wide, signed "STANLEY RULE & LEVEL Co NEW BRITAIN CONN." "No 31.".
Courtesy of Liberty Tool Co.
<http://www.davistownmuseum.org/bioStanley.htm>
- 052611T1 **Speed indicator** DTM TT
Drop-forged nickel plated steel, 5" long, signed "L. S. STARRETT CO." "ATHOL MASS".
Speed indicators are used for measuring the turning speed of machinery such as lathes.
<http://www.davistownmuseum.org/bioStarrett.htm>
- 22311T21 **Spirit level** DTM TT
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>
- 52603T35 **Spring caliper** DTM MH
Steel, 5 3/16" long, 4" wide, signed "SAWYER".

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TJR2203	Square	DTM	MH
Cast iron or steel, 12" x 8", signed with an obscured signature.			
11301T3	Square	DTM	MH
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 J. B. Jopson is listed in DATM (Nelson 1999). Could this be an owner's mark?			
31611T4	Square	DTM	TT
Drop-forged tempered alloy steel, 12" long by 7" long, 1/8" wide, signed "SAFFORD". The blades are tapered. The longer one is stamped with numbers.			
41203T4	Surface gauge	LPC	MH
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". This is a classic example of the exquisite workmanship of the classic period of American machinist tools. http://www.davistownmuseum.org/pics/41203t4_p3.jpg			
21201T12	Surface gauge	DTM	MH
Steel, 1 1/2" long, 1 9/16" wide, 1 3/8" high, signed "V Oby". 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. http://www.davistownmuseum.org/pics/21201t12.jpg http://www.davistownmuseum.org/bioOby.htm			
101610T1	Surface gauge	DTM	MH
Drop-forged malleable cast iron and steel, 3 5/8" long, 3 1/4" wide, 11 3/8" long gauge rod, signed "W. Anderson" owner's mark, c. 1910. Donated by the Swenson family.			
111900T3	Surface gauge	DTM	MH
Steel, 2 1/8" x 1 7/16" base, 4 3/8" arm, unsigned. This is an essential component of the tool kit of the tool and die maker, constructor of the machines that then made other tools.			
111006T3	Swivel gauge	DTM	MH
Cast steel and leather box, 7 1/4" long with an 8" long box, signed "BOULET'S FINE TOOL WORKS, INC." "SEBAGO LAKE MAINE" "PAT.OCT.2.1900" "PAT.SEPT.10.1901" and "PAT.FEB.23 04". http://www.davistownmuseum.org/pics/111006T3_p1.jpg http://www.davistownmuseum.org/pics/111006T3_p3.jpg			
041505T33	T square	DTM	MH
Steel and brass, 7 1/2" long, 3 1/2" wide, signed "C. EGGE". Maker C. Egge was a Boston toolmaker and inventor of die engineering equipment, c. 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. http://www.davistownmuseum.org/pics/041505t33.jpg			
101701T7	Tap drill gauge	DTM	MH
Cast steel, 4 1/2" long, signed "MAD by STERLING ELLIOTT NEWTON, MASS, USA", 1890 - 1910. 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 30+ years in the tool business, has never seen this marking before. It is a very rare signature. The sizes 2 - 24 appear hand-stamped, they are slightly off center.			
41302T5	Tapered gauge	DTM	TT
Steel, 6 1/8" long, 7/16" wide, signed "N. 270 The L. S. Starrett Co. Athol, Mass USA". It is calibrated in millimeters and in hundredths of an inch. The maximum thickness this gauge measures is 0.150 inches. DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm			

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914108T2	Thickness gauge	DTM	MH
<p>Steel, 6 1/2" long, 6" long blades, signed "EINAR HANSON" "-TOOLS-" "WORCHESTER. MASS" and owner's mark "F. W. PAGE". Folded inside are 8 blades marked: 2, 3, 4, 6, 8, 10, 12, and 18. Einar B. Hanson was superintendent of the factory established by his brother, H. L. Hanson (b. 1881) who rented a room and some machinery at No. 54 Hermon street, Worcester, MA, where he began the manufacture of piano hardware. He expanded and moved to No. 25 Union street. Mr. Hanson was the originator of many taps and dies (Nutt, Charles. History of Worcester and its people, Vol. 3).</p>			
41801T15	Tool and die-makers' jig	DTM	MH
<p>Steel, unsigned. Was this owner made? It was acquired along with the marking gauge (41801T10).</p>			
101701T15	Tool and die-makers' square	DTM	MH
<p>Steel, 1 1/2" long, signed "Sawyer Tool Mfg Co Fitchburg Mass USA Hand", between 1894 - 1912. 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	MH
<p>Metal, 4 1/2" long, signed "STARRETT ATHOL MASS NO. 494-D". DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm</p>			
111900T13	Toolmakers' buttons	DTM	MH
<p>Steel, 2 5/16" long, signed "Starrett Athol Mass USA No 494.B". DATM (Nelson 1999, 751) contains historical information on L. S. Starrett Co. http://www.davistownmuseum.org/bioStarrett.htm</p>			
22512LTC12	Toolmakers' universal surface gauge	DA	TT
<p>Drop-forged tempered alloy steel, 4" long, 4" wide, 1/2" high, signed "THE L.S. STARRETT CO. ATHOL, MASS. U.S.A." "STARRETT No. 56A With 4 inch Spindle TOOLMAKERS' UNIVERSAL SURFACE GAGE 1". Also signed "ONLY THE L.S. STARRETT CO. Athol, Mass. U.S.A." It is designed so a variety of dial and probe attachments may be used to determine exact heights and distances on three dimensional objects. Courtesy of Liberty Tool Co. http://www.davistownmuseum.org/bioStarrett.htm</p>			
3312T14	Try square	DTM	TT
<p>Drop-forged tempered alloy steel, brass, rosewood, 4 1/2" long, 3" wide, signed "PATENTED JUNE 20 '09" with a scratched in owner's mark "JOS". Courtesy of Liberty Tool Co.</p>			
100400T8	Try square	DTM	MHC-K
<p>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.</p>			
22411T23	Winged outside calipers	DTM	TT
<p>Tempered alloy steel, 9" long and 4 1/2" wide when closed, signed "J. M. PARKHURST". This appears to be an owner's mark and not a maker's mark.</p>			
10910T5	Wire gauge	DTM	MH
<p>Tool steel, 5 1/4" long, 1 5/8" wide, signed TWIST DRILL & STEEL WIRE GAUGE; Morse Twist Drill & Mch. Co. New Bedford Mass., c.1890. Donated by the Swenson family. http://www.davistownmuseum.org/pics/10910t5web2.jpg http://www.davistownmuseum.org/bioMorseTwist.html</p>			
72002T8	Wire gauge	DTM	MH-I
<p>Cast steel, signed "Lacene Mfg Co. Manchester NH". Was this wire gauge made after 1900? If not a wire gauge, what is it?</p>			

Davistown Museum Inventory of Tools - Industrial Revolution - Machinists

Measuring Tools

Status Location

032203T7 Wire gauge

DTM MH

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>

22411T28 Wire gauge

DTM TT

Drop-forged tempered alloy steel, 5 1/4" long, 1 5/8" wide, signed "E. W. SIMMONS".

It appears to be hand-stamped.

22412T1 Wire gauge

DA DA

Drop-forged steel, 3 3/16" diameter, signed "J.R. BROWN & SHARPE PROVIDENCE R.I. STANDARD WIRE GAUGE".

This is a circular wire gauge used for gauging thickness. It is graduated from 0 to 36. This item is provided courtesy of Liberty Tool Company.

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

10910T4 Wire gauge

DTM MH

Tool steel, 4" long, 1" wide, signed B. & S. STANDARD WIRE GAUGE; THE BLODGETT MF'G CO. ROCHESTER, N.Y., c. 1900.

Donated by the Swenson family.

<http://www.davistownmuseum.org/pics/10910t4web1.jpg>

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

3912LTC1 Compound levered shears

DA TT

Drop-forged tempered alloy steel, 14 1/4" long, 4 3/8" wide, signed "8896" "PAT. OCT. 12 NOV. 30 1909".

These shears were produced by Detroit Shear Company. The November 30 patent belongs to J.R. Searight and covers the levered design. Courtesy of Liberty Tool Co.

111900T10 Pocket screwdriver

DTM MH

Steel and rosewood, 4 1/4" long, signed "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>

Woodworking: Edge Tools - American Made Cast Steel

110611T5 Paring chisel

DTM TT

Cast steel, wood, 3 1/4" long blade, 4 1/2" long wooden faceted handle, 1/4" diamond shape edge, signed "BUCK BROS" "JAMES CAM".

Possibly it was reforged into a diamond shaped edge tool. The signature sequence is particularly significant showing Buck Brothers utilizing English steel. The first edge tool we've encountered with a James Cam (steelmaker) mark on the verso.

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

Woodworking: Edge Tools Made in Maine

32405T1 Countersink

DTM MH

Cast steel, 5 5/8" long, 3/4" wide, signed "PATENDED" "JAN 23, 1877." "D.J. ADAMS" "KITTEERY, 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.

Status Location

Woodworking: Other Tools

<p>31908T35 Framing square</p> <p>Steel, 24" long, 14" wide, signed "S. HAYES" "PATENT" "WARRANTED" and "STEEL". There is no S. Hayes in DATM (Nelson, 1999).</p>	<p>DTM MH</p>
<p>32708T62 Marking gauge</p> <p>Brass, rosewood, and metal plate, 7" long, unsigned. http://www.davistownmuseum.org/pics/32708t62-1.jpg</p>	<p>DTM MH</p>
<p>31808SLP23 Marking gauge</p> <p>Mahogany with brass inlay, 9" long, signed "PAT. AUG. 5, 1873". http://www.davistownmuseum.org/pics/31808slp23-3.jpg http://www.davistownmuseum.org/pics/31808slp23-1.jpg</p>	<p>DTM TT</p>
<p>31808SLP27 Mortising gauge</p> <p>Wood and brass, 8" long, 7" long gauge, unsigned. http://www.davistownmuseum.org/pics/31808slp27-1.jpg http://www.davistownmuseum.org/pics/31808slp27-2.jpg</p>	<p>DTM TT</p>
<p>30911T1 Parting tool</p> <p>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".</p>	<p>DTM TT</p>
<p>31808SLP18 Sliding T bevel</p> <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>	<p>DTM TT</p>
<p>31808SLP19 Sliding T bevel</p> <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>	<p>DTM TT</p>
<p>22311T14 Try square</p> <p>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. http://www.davistownmuseum.org/bioWinchester.html</p>	<p>DTM TT</p>