



TOOLS & TECHNOLOGY

AMERICAN PRECISION MUSEUM • SUMMER 2010

Vol. 28, No. 1

The American Precision Museum is open daily 10 am - 5 pm, Memorial Day weekend through October.

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Precision Timekeeping and the Collection of Ed Battison

Thanks to the collections of the late Ed Battison, founder of the American Precision Museum and the Franklin Museum of Nature and the Human Spirit, we will be exhibiting two watches and two wooden clock movements to show the evolution of precision manufacturing to precision timekeeping mechanisms.

When Battison died in early 2009, he left behind a collection of artifacts mostly related to precision manufacturing and its evolving technology. His expertise in the field of clocks and watches goes back to his late teen years when he began repairing clocks. At that time, Windsor's Old South Church, built in 1798 by noted architect Asher Benjamin, housed a clock that was owned by three churches in town. Battison worked on the clock and then struck an agreement with the three ministers that gave him ownership of the clock. His interest grew over the years to include watches and all manner of clocks leading to his appointment as the Smithsonian's Assistant Curator of Horological and Small Machines.

Eli Terry was an inventor and clockmaker in Connecticut who held a patent for a shelf clock mechanism. He introduced mass production to the art of clock making, which made clocks affordable for the first time for an average American. The wood shelf clock movement (ca 1830s) on exhibit is a refinement of his efforts to mass produce wood-movement shelf clocks. His simple wooden movements, used by and/or licensed to other clockmakers, were considered the first mass-produced machines consisting of interchangeable parts. Terry

Precision Timekeeping continued from page 4



Sterling Silver Pocket Watch, Appleton, Tracy & Co.

photo by Jon Gilbert Fox

A Great Friend, Mrs. Robert E. Morris

"A man of high intellect, good humor and extraordinary energy, whose accomplishments in the machine tool industry were distinguished by uncompromising principles, working with integrity, striving for perfection and providing for family."
From the 1992 dedication of the Robert E. Morris Wing at the American Precision Museum by Dorothy Morris.

Although most of us at the American Precision Museum did not know Robert E. Morris, we did know Dorothy thanks to her notes, cards and phone calls, along with occasional visits when she was in Vermont with her son Lee and his family. When she died in October, it was the end of an era, and we lost a wonderful friend.

Bob's involvement with the museum began in
Mrs. Robert E. Morris continued from page 4

Calendar of Events 2010

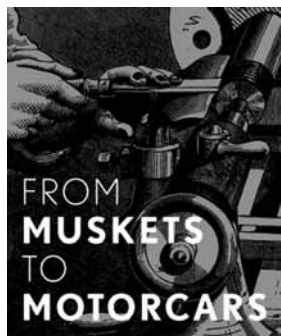
FREE SUNDAYS throughout the season

Memorial Day weekend through October

EXHIBIT

From Muskets to Motor Cars: Yankee Ingenuity and the Road to Mass Production

Explore the tools and products that led to mass production, and enjoy seeing several watches and clocks from the collection of Ed Battison, the museum's founder, added to the exhibit for 2010.



EXHIBIT

Waterwheel Pit and Millwork, Robbins & Lawrence Armory

Interpretive drawings from the study by the *Historic American Engineering Record* explain how the museum's building evolved from 1846 to the present. Detailed renderings of the 1846 period show how the waterpower system worked.

Working Machine Shop

10:30 am – 4:30 pm

Student interns provide demonstrations on working machines from late June - mid August and on one day each weekend through October. The River Valley Technical Center, Springfield VT is our project partner.



Sunday, July 18

11:00 am - 3:00 pm

Machine Tool Reunion

This program for former employees and families from Jones & Lamson, Bryant Chucking Grinder and Fellows Gear Shaper will begin at the museum with a special tour. A brown-bag lunch at Windsor's Welcome Center follows with an afternoon discussion facilitated by the VT Folklife Center's Director of Education, Greg Sharrow. He will explore the major role these companies played in the life of Springfield Vt. *Dessert and drinks provided by the museum. Funded, in part, by the Vermont Humanities Council*

Saturday, July 31

3:00 pm

Precision Timekeeping

Precision manufacturing was critical to the production of interchangeable parts and precision timekeeping mechanisms for railroad and military applications. *Expert antique clock and watch collectors, Steve Sanborn and Ted Cooley will discuss the history of clocks and the development of precision timekeeping.*

Wednesday, August 4

3:00 - 5:00 pm

An Afternoon for Educators

A reception and special tour at the museum to learn more about our offerings for students using *The Industrial Revolution in Northern New England*, the museum's traveling education kit (grades 7-12) in the classroom. Call, e-mail museum to reserve.

Saturdays, August 14, 21 and September 11, 18

11:00 am - 4:00 pm

Mobile Manufacturing Exposition

This self-contained educational 'road show' from Springfield Vt's River Valley Technical Center introduces students and visitors to the high-tech world of modern manufacturing through a series of hands-on activities.

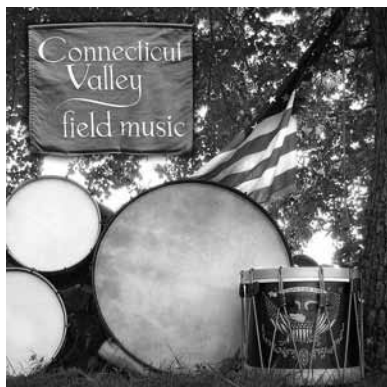


Sunday August 15

2:00 pm

A Fife and Drum Concert with Connecticut Valley Field Music

For fifteen years, these musicians have been developing the genre of traditional music for fife and drum. This concert featuring rope-tension snare and bass drums and wooden fifes will be followed by a lecture on the history of field music in this country and Europe by the band's founder and leader, Jim Clark.



Saturday, August 28

11:00 am

Meet the Experts:

A Special Museum Tour

Saturday, September 25

***(free admission with special
Smithsonian Day Admission Card)***

10:00 am - 5:00 pm

***Special Museum Tours @ 11:00
and 2:00***

It's Smithsonian Day at museums around the country! Download the Museum Day Admission Card from the Smithsonian's website and come visit us, as well as other museums in our area – all offering free admission.



Sunday, October 10

11:00 am

Meet the Experts:

A Special Museum Tour



photo by Medora Hebert

Saturday, October 30

***11th annual Model Engineering Show,
9:00 am - 5:00 pm***

American Precision Museum

Visit with New England's finest model engineers and enjoy special workshops and demonstrations throughout the day.



photo by Medora Hebert

Board of Trustees

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EXECUTIVE DIRECTOR

Ann Lawless

FOUNDING DIRECTOR

Edwin Battison
(1915-2009)

The American Precision Museum, founded in 1966, preserves the heritage of the mechanical arts, celebrates the ingenuity of our mechanical forebears, and explores the effects of their work on our everyday lives. The museum is housed in the original 1846 Robbins and Lawrence Armory in Windsor, Vermont. The Armory was designated a National Historic Landmark in 1972. The museum holds the largest collection of historically significant machine tools in the country.

Precision Timekeeping *continued from page 1*

also produced wooden-movement tower clocks, such as those found in the steeples of churches and perhaps even the same clock from Windsor's Old South Church.

Also on loan from the Battison collection at the Franklin Museum of

photo by Jon Gilbert Fox



Pocket watch movement, American Watch Co.

Nature and the Human Spirit are two examples from the American Watch Company, formed as a result of an 1859 merger of the Appleton, Tracy Co. and the Waltham Improvement Co. This name and the products made by this company established the benchmark for other high-quality production.

The first is a pocket watch movement (ca. 1858), which was the first commercially successful attempt at producing watches with interchangeable parts. The Appleton, Tracy & Co. pocket watch (ca. 1857) on display is in its original sterling silver case.

The American Precision Museum looks forward to more collaborative efforts with the Franklin Museum, and we thank them for these enhancing our *Muskets to Motorcars* exhibit with these loans.

Mrs. Robert E. Morris *continued from page 1*

the very early days when Ed Battison drew him in with a vision for a museum dedicated to the story of the development and importance of the machine tool industry in this country. After Bob died in 1988, Dorothy was committed to preserving his legacy. They were always a team, and she was just as dedicated to the future of the museum as he had been. The Robert E. Morris Wing stands today as a testament to that commitment.

The Morris Wing was formally dedicated in 1992, and Dorothy remained a faithful supporter and a good friend to the museum. She regularly asked for news of the museum along with the gentle reminders to us to be sure and keep 'Bob's Wing spit and polish.' That was easy to do, and we followed through with care and attention to every detail. The continued philanthropic commitment from the family and from Dorothy in particular has enabled the museum to move ahead with many significant building restoration projects.

The early years set the path

Robert E. Morris was a 28 year-old "machine tool guy" when he started The Robert E. Morris Company in 1941 with his 23 year-old wife, Dorothy. The business quite literally started at the kitchen table in their West Hartford,



The Morris family at groundbreaking
(left to right: Bob Dorothy and Lee)



Robert and Dorothy Morris on their wedding day, 1940.

Connecticut home. They didn't know it then, but they started a company with real staying power. Dorothy was an active employee of the company for over 45 years and her husband's most trusted advisor. As Robert's reputation in the industry grew, so did his company.

Robert Morris's story, which is also Dorothy's, is one of determination, accomplishment and dedication to family. Son Lee, who recently stepped down as CEO, explained that there are three "Ps" required to perpetuate a family business – Planning, Performance, and Passion. Lee observed that his parents' passionate leadership created a company culture that invited perpetuation. The business is now in its 69th year of operation.

Lee Morris said it best in a 1997 speech about his father: "An owner's passionate behaviors infect a company and create a culture that lasts well beyond his time. The presence of a leader's passion magnifies everything that he does right. Think of passion as a multiplier. Passionate leadership gives the business a soul. It galvanizes values and best practices into culture. Passion is the foodstuff of perpetuation." Robert Morris's grandson Brad is now President of the Morris Group, and he too shares the family passion for the 'machine tool game.' The American Precision Museum shares that passion too.

From the Chairman, Board of Trustees and the Executive Director

Our annual report always gives us the opportunity to reflect on the past year. We finished a major three-year project that vastly improved our ability to manage and care for our collections. This groundwork was essential for exhibits, research and improving the care we provide for the collections. Our Collections Committee continues to meet and is developing a Collecting Plan that will guide us in the future. With funding from the National Endowment of the Humanities (NEH), we worked with a team of consultants, staff and Trustees to create a long-term plan that will guide future exhibits and programs.

During our NEH planning project we worked with the Vermont Folklife Center conducting interviews with former employees from the Windsor and Springfield 'Precision Valley' industries. The interviews are now transcribed, archived, preserved and accessible to researchers and the public at the Center in Middlebury. These rich stories will be a superb resource for future exhibits and programs.

Like most nonprofits, the American Precision Museum is feeling the results of this economic downturn, and we anticipate they will be with us for some time. We have seen a decrease in donations, and our carefully nurtured investment portfolio has not yet fully recovered. As pressure increases on government budgets at all levels, so does the competition for government grants. In spite of our past successes, we also face the challenge of shifting from reliance on government grants to private donations.

At the federal level, after completing the NEH planning project, we submitted an implementation grant application requesting \$400,00 to fund



Gilbert Whittemore
Chairman, Board of Trustees



Ann Lawless
Executive Director

a new exhibit to open in 2013, *Shaping America: Machines and Machinists at Work*. This year, NEH funded only 3 planning grants and no implementation grants out of 29 applications submitted, and ours was not funded. While the NEH's funding for grants has remained constant for this year, it is unlikely there will be any dramatic increases in federal budgets in the near future. While there is a lot to learn from the reviewer comments about our proposal, the larger lesson for us is that the museum must develop a stronger base of individual donors if we are to continue to grow.

At the state level, the Vermont Department of Labor provided seed funding of \$53,000 over the past two years, helping us build a strong student internship program in our working machine shop. Our enthusiastic young machinist demonstrators have the opportunity to both learn and teach, and they make history come alive for our visitors. Even though the State did not fund us this year, the working machine shop is an important museum program, and we must look to individual donors for support.

We are very pleased that our long-time Machine Tool Hall of Fame

partner, the Association for Manufacturing Technology, has invited us to exhibit at the International Machine Tool Show in Chicago, September 13-18. This will be our first presence at this show in some years, and with over 80,000 visitors expected, we plan to take every advantage of this opportunity to make the museum more visible to today's machine tool industry.

Even in difficult times, the collaborative efforts of everyone working together can strengthen the museum as an institution which does full justice to all aspects of the history of precision manufacturing.

Thank you for your continued support and commitment.



John Alexander and volunteer Steve Wright

Volunteers

The museum is very grateful to all our volunteers, including our dedicated Board of Trustees and Board of Advisors, all of whom spend many hours on behalf of the museum. Each brings his/her own perspective, expertise and skill to the museum.

We are pleased to acknowledge each of them in this report, and we thank them for their continued good will and commitment to the museum.

Ruth and Paul Doiron

Joseph Gresser

Marita Johnson,

Springfield Public Access Television

Venkat Krishnaswamy

Pam Levesque

Raj Nolambur

Mike Riviezzo

Nancy Smith

Clay Washburn

Sandy Wilson

Steve Wright

Herb Yohe

Pat Youden



One Company's Commitment to its Community Hypertherm's Week of Service

Hypertherm, one of the Upper Valley's largest and best known companies, designs and manufactures the world's most advanced metal cutting systems. The company, founded in 1968 by Chairman and CEO Dick Couch, is consistently named as one of the best places to work in the country! Part of their successful corporate culture is a commitment to volunteering for all their Associates. Each gets up to 16 paid hours annually to be used to volunteer with a local nonprofit of his/her choice or through the company's Week of Service, held once each quarter.

When we received notice from Hypertherm about the possible availability of highly skilled and capable volunteers, the museum responded immediately with an enthusiastic YES! Clyde Gordon, Ed Bourgoine, Richard Day, Michael Schaefer and Bill Lynn were the first group, spending two days with us in January. They helped prepare our Maxfield Parrish collection for a professional assessment by Henry Duffy, the Curator at neighboring Saint-Gaudens National Historic Site in Cornish NH. Then

in April, we were lucky enough to have Ryan McPhee and Korrine Smith. They are pictured here with the museum's Collection Technician, John Alexander, working on the museum's 4-slide machine at the River Valley Technical Center in Springfield, VT.

The Hypertherm volunteers 'get' our machine culture and our museum, and we hope they know how much we value their individual expertise and enthusiasm. We thought the following statement, adapted slightly, from the company website best describes our Hypertherm volunteers. *'Experience, innovation, and a relentless commitment to excellence, ensure Hypertherm volunteers remain a cut above anything else on the market today.'* We could not agree more, and we eagerly await the announcement of the next Week of Service. Good volunteers are an invaluable resource, and we hope our new Hypertherm friends will all return to the museum this season as our guests!



Hypertherm's Ryan McPhee and Korrine Smith with John Alexander

Financials

Condensed Balance Sheets*

for the years ended April 30, 2008 and April 30, 2009

	2008	2009
ASSETS		
Cash and equivalents	\$ 14,339	\$ 75,247
Grant receivables	378,013	46,256
Other current assets	8,805	6,034
Property and equipment, net of depreciation	820,887	829,245
Investments	1,322,844	1,288,833
TOTAL ASSETS	\$ 2,544,888	\$ 2,245,615
LIABILITIES AND NET ASSETS		
Current liabilities	\$ 10,790	\$ 11,246
Unrestricted net assets	1,357,055	1,428,881
Temporarily restricted net assets	394,517	197,506
Permanently restricted net assets	782,526	607,982
TOTAL NET ASSETS	\$ 2,534,098	\$ 2,234,369
TOTAL LIABILITIES AND NET ASSETS	\$ 2,544,888	\$ 2,245,615

Condensed Statement Of Activities And Change In Net Assets*

for the years ended April 30, 2008 and April 30, 2009

	2008	2009
REVENUE		
Donations, bequests, grants	\$ 542,408	\$ 327,553
Admissions	17,400	18,599
Memberships	25,703	24,635
Investment income	52,626	52,461
Unrealized gain (loss) on investments	(26,569)	(246,251)
Other income, net	7,844	6,736
TOTAL REVENUE	\$ 619,412	\$ 183,733
EXPENSES		
Salaries and benefits	\$ 176,453	\$ 190,890
Depreciation	45,522	48,565
Occupancy, insurance and maintenance	23,965	24,208
Office and publication costs	32,245	26,808
Professional services	14,360	18,396
Contracted services	34,379	43,783
Other expenses	50,922	130,812
TOTAL EXPENSES	\$ 377,846	\$ 483,462
REVENUES LESS EXPENSES		
EQUALS CHANGE IN NET ASSETS	\$ 241,566	\$ (299,729)

*Complete reviewed 2009 and 2008 financial statements with accompanying notes and opinions are available at the museum office.

Board of Advisors

Peter Brink National Trust For Historic Preservation (Retired)	Michael Newbold Marketing and Planning Executive (Retired), Former Trustee
Gene Cesari Landmark College, President Emeritus, Former Trustee	William McCarthy Restoration Millwork, Owner, Former Trustee
Ray Clark Recreate, President	Wayne Moore Moore Special Tool Company, President (Retired), Former Trustee
Ted Cooley Cooley & Company Consulting, Former Trustee	Jane Osgood Local Developer, Historic Preservation
Richard Couch Hypertherm, Founder, Chairman/Ceo	Tom Putnam Markem Corporation, CEO (Retired)
Ann Cousins Preservation Trust Of Vermont Field Service Representative/Special Gifts Officer	Rick Roesch Citigroup, Director of Corporate Affairs (Retired), Former Trustee
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Sarwar Kashmeri Strategic Communica- tions Advisor, Business Consultant	Geoffrey Thornton Thornton And Smith, Architects
Douglas Loudon Loudon Investment Management, President, Former Trustee	Donald Whitney Fellows Gear Shaper, retired
Frank Manasek Medical School Professor Emeritus, Antiquarian Map Expert	Allen Yale Lyndon State College, Professor Emeritus
	E. Hubbard Yonkers Innodyne, Inc., founder

2009 Report on Giving

It is with grateful appreciation that we recognize here all those who contributed so generously to the American Precision Museum in 2009. Each gift we receive helps to preserve and maintain the 1846 Robbins & Lawrence Armory, our single most important artifact, and our historically significant machine tool collections.

Support comes in many forms from important acquisitions to the collections, gifts in kind and gifts made in honor or in memory of a loved one or friend, grants to the museum for specific projects, membership and annual and special purpose gifts. It is that support that continues to sustain and grow this museum. You are responsible for our success. Thank you.

E. Hubbard Yonkers
Chair, Development Committee

ANNUAL AND SPECIAL PURPOSE GIFTS

January 1-December 31, 2009

Robbins and Lawrence Society (\$2,500+)

Association for Manufacturing Technology
Edwin A. Battison
(deceased)
Douglas M. Loudon
Barry MacLean
Dorothy Morris
(deceased)
Rick and Linda Roesch
M. Allen Swift (*Estate of*)

Mill Book Society (\$1,000-\$2,499)

Roald Cann
Cone Automatic Machine Co. Charitable Foundation
Robert Dufresne
James N. and Nancy J. Farley
Anonymous
Peter C. Forster
Robert A. Moeser
Erik M. Moeser
Lee and Diane Morris
New England Antique Arms Society
Michael Newbold
Jane Osgood and Ted Hilles
Polly and John M. Timken, Jr.

Merritt Roe Smith
Theodore H. Church Foundation, Inc.
Susan Kettering Williamson

Precision Valley Society (\$500-\$999)

Mark and Michele Aldrich
Thomas J. Bond III
Bryant Chucking Grinder Charitable Foundation
Lillian M. Fizette
Clark A. Griffiths
Henry A. Jordan
(deceased)
Seymour Lehrer
Mercury (Dan Drumheller)
Neil A. M. Peters
Margaret and Eric Rothchild
Anne T. Shafer
Alden O. Sherman
Donald S. Whitney
Debra L. Williamson

Edwin Battison Society (\$250-\$499)

Susan Baker
Steven C. Carter

Chittenden Bank
Carolyn Coker
Richard and Barbara Couch
Newell Flather
Gosiger Foundation
Thomas H. Hughes
Richard A. Johnston
Constance Landmann
Bill McCarthy
John Richards
Royal Products
Jane E. Sherman
Christopher Walker

The 1966 Society (\$100-\$249)

Albert Albrecht
Liora Alschuler
Paul and Jesse Beber-Vanzo
Daniel J. Brammell
Mr. and Mrs. Edgar B. Butler, Jr.
James A. Carlson
Clean Yield Asset Management
John Rohlfs
Cota & Cota, Inc.
Dennis Cross
Mary L. Dembik
Darlyne and Bruce Franzen
Phyllis and Lloyd G. Freed, Sr.
Mr. and Mrs. James L. Garvin
Eric Gilbertson
Douglas Graham
Karl Gurcke
R. Avery Hall
Hammond Roto-Finish
Anonymous
Daniel L. Hertz, Jr.
Robert B. Kancir
Anonymous
William Knack
Byron R. Knapp
Web Kohlhasse
Ken Kranzusch
Ann C. Lawless
Bill Lewis
Mark Long
Bruce A. Magnell
Lynn McCarroll
David C. McClary
W. Scott McClurg
Wayne Moore
David G. Murray
Joseph Nemes

Pitney Bowes Employee Matching Gift Program
John and Emily Sands
Sheafe Satterthwaite
Dr. and Mrs. Gerhard Sihler
Ronald K. Smeltzer
Mr. and Mrs. Richard E. Smith
Martin Sornborger
T. Michael Speidel
Peter Teale
Thorn Industries
Trident Machine Tools
Larry Welker
George Wenz
Mike and Rosemary Whitney
Gilbert Whitemore
Bobbie L. Williams
Dr. Allen Yale

Friends

(up to \$99)

Watt D. Alexander
Don Amsberg
Dr. Howard W. Andrews
Anonymous
Dietrich Apel
Jim and Diane Ash
Charles E. Baldwin, III
Gail Barton M.D.
Iris M. Berezin
F. Steele Blackall, III
William E. Blockley
David Bono
Judith B. Boucher
Jean Brown
Alan Bugbee
Bruce A. Campbell
Sarah F. Carter
Friend of the Museum
Richard Chandler
R. E. Coleberd
Connstep, Inc.
Edmond S. Cooley
Russell Craig
Mary Jo Davis
David Donath
Deborah Doyle-Schechtman and Jonathan T. Schechtman
Henry Eberhardt
Henry O. Egli
Robert B. Fearing
Robert Finucane
Stephen J. Fitzkee
Peter Flesch
GE Foundation
Eleanor L. Gabel
Michael D. Garber
Ernest and Shelah Gaudet
Bert Gilbert
Tom Hale
David Hallenbeck

Thomas Hammond
Scott and Amy Hauser
Keith Hezmalhalch
Richard Hoertel
Donald and Carolyn Hoke
Frank B. Homan
Wilhelm Huxhold
Robert L. Johnson
Betty D. Jordan
Paul B. Kebabian
Verna M. Kloos
Kramer Tool & Engineering, Inc.
Clifford and Irene LaCount
James H. Lampert
Christopher and Julia Loudon

James Lowrey
George F. Luthringer
Joseph W. Martin III
Carol B. Martin
Donald E. Maurer
John P. McDougall
Richard C. Meyer
Ron and Laura Mitchell
A. E. Motzer
Frank Mullen
Barbara M. Naef
Joseph and Dorothy Paparelli
Jerry Pontius
Tom Putnam
Peter Renzetti
Mr. and Mrs. Donald E. Ridley
Trevor Robinson
John S. Roe
Daniel Shegryn
Jim Sindelar
Ernest W. Smith
John W. Snarski, Jr.
Ralph Sparks
Larry Stark
Jean Taylor
Robert and Helena Vogel
Edward and Barbara Walker
Gregory K. Young

In Memory Of

Deb Austin
Liora Alschuler
Edwin Battison
Clark A. Griffiths
Merritt Roe Smith
William E. Beard
Byron Knapp
Charles F. Carter
Steven Carter
Ralph Cross
Dennis Cross
H. Ezra Eberhardt, Jr.
Henry Eberhardt

Paul Fizette
 Lillian Fizette
 William A. Kloos
 Verna Kloos
 John Miller
 Charles and Kathryn
 Heide, III
 William O. Moeser
 Eric M. Moeser
 Robert A. Moeser
 Dorothy M. Morris
 Edgar Butler
 Mary Dembik
 Peter Forster
 Lloyd and Phyllis
 Freed, Sr.
 Eleanor Gabel
 Gosiger Foundation
 Scott Hauser
 Betty Jordan
 James Lowrey
 Lynn and Spike
 McCarroll
 Mercury
 Joseph and Dorothy
 Paparelli
 Anne Shafer
 Mike and Rosemary
 Whitney
 Bobbie Williams
 Earl C. Sparks
 Ralph C. Sparks
 Peter Williamson
 Debra Williamson

Gifts in Kind

Loudon Investment
 Management
 Miles and Pat Mushlin

MEMBERS

Benefactor (\$1,000)

Robert P. Molten
 John Grady

Steward (\$500)

Dennis and Evelyn
 McGrath
 Neil A. M. Peters
 Richard E. C. White
 Donald S. Whitney

Patron (\$250)

Liora Alschuler
 Charles F. Carter
 (deceased)
 Rolf Diamant
 Gary Hagopian
 Patrick J. Harrington
 Joseph Jablonowski
 Charles Leni
 Richard P. Pitkin

Peter Rebar
 Royal Products
 Kirk D. Stackhouse
 Augustus P. Stager
 James J. Storrow

Associate (\$100)

Don and Julia Amtsberg
 John Bainbridge
 Robert A. Barutis
 Frank and Betsy
 Bechdolt
 Dennis C. Bely
 Skip Bergstrom
 Roger R. Bradford
 Shepard Butler
 Gene Cesari
 James H. Cudlip
 David A. DeGhetto
 Bruce and Darlyne
 Franzen
 Harold J. Frost
 John B. Gahura
 Michael D. Garber
 Karl Gurcke
 Robert R. Hall
 John C. Hicks
 Robert J. Hocken
 Glenn Hopkins
 Russell and Karl Horster
 Thomas H. Hughes
 Richard Johnston
 James M. Kerr
 Verna Kloos
 Cliff LaBounty
 Ray Larsen
 Mr. and Mrs. Thomas G.
 Levesque

Kenneth E. McVicar
 William A. Mitchell
 Jeffrey E. Myers-Hayer
 Thomas W. Neilsen
 Thomas P. O' Leary
 David and Mary Otto
 Kermit Pratt
 Clarence A. Prevo
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 Alex Slocum
 Robert Steffensen
 Tony Stitt
 David and Mary Talbot
 Derek Trelstad
 William H. Tschappat
 Ronald Votta
 Paul T. Wardwell
 Robert O. Webster
 Allen R. Yale

Family (\$55)

Jim and Brooke Adler
 Mark and Michele
 Aldrich
 Charles and Lola Baldwin
 Kevin S. Barney
 Paul and Jesse
 Beber-Vanzo
 David Beilman and
 Sarah Lewis
 Frank and Mary Blazek
 Joanna Bodenweber and
 Geoffry Fried
 Judith B. Boucher
 Edmund and Micki Brett
 Roald Cann
 Ronald E. Clark
 Mr. and Mrs. Edwin G.
 Collins
 Russell Craig
 Davistown Museum
 Russell H. Dunham
 Walter and Katie Eaton
 Wayne Elliott
 Wayne Fischer
 Dennis and Claudette
 Flora
 David F. Ford
 Mr. and Mrs. James
 Garvin
 Ernest and Shelah
 Gaudet
 Robert L. Geddes
 Eric Gilbertson
 Edward J. Goldman
 Greg Guest
 Jonathan Hall
 James V. Halvorsen
 John S. Hamel
 Ray and Barbara Hamel
 Emmons C. Hathaway
 James G. Hearne
 F. Leo Hickey
 Joseph C. Higgins
 James Higley
 Richard Hoertel
 Charles Horsken
 Wilhelm Huxhold
 Justin Johnson
 John S. Kauer
 Francis E. Kennedy
 Ronald and Anita
 Krauth
 Clifford and Irene
 LaCount
 Robert and Vera Lake
 Roger and Carolyn Lang
 David S. Lindquist
 Thomas H. Lowry
 Perley and Donna Lund
 Bruce A. Magnell
 Kendall and Marcia
 Manner
 Joseph W. Martin

Hoyt W. Masterton
 Jeff May
 Ronald Melvin
 Joseph Morel
 Michael G. Morello
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(The museum offers free family memberships to public libraries. Call the museum for details.)

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We encourage you to bring any mistakes or omissions to our attention so that we may correct our records accordingly.

Thank you!

Acquisitions to the Collections

Salt and Pepper Shakers, circa 1967, Cone-Blanchard Machine Company, Windsor, VT, *Janice Lewyn*

Turret lathe, circa 1940, Jones and Lamson machine Company, Springfield, VT, *Rod Gray Machine Tool Company*

Measuring Tool Set in case, circa 1895, J. Stevens Arms and Tool Company, Chicopee, MA, *Edward Becker*

Pedal Lathe, circa 1904, Carroll-Jamieson Machine Tool Company, Batavia, OH, *Eli Whitney Museum*

Robotic Arm, circa 2008, Intelitek, Inc., Manchester, NH, *Intelitek, Inc.*

Duplicating Lathe model, Peter Fernleigh Jones, Yorkshire, England, *Mike Jones*



Measuring Tool Set

A model of the Blanchard Lathe makes its way from England to the American Precision Museum!

This outstanding example of a working model of the Blanchard lathe was made by Peter Fernleigh Jones in Scalby, Yorkshire. It was given to the museum after his death by his son Mike.

Jones's model illustrates the principles developed by Thomas Blanchard. The Blanchard lathe (ca. 1818) was an invention which opened up a completely new approach to wood turning. Its significance at the time can be compared with the introduction of numerical controls in the 1950s. Using a Blanchard lathe, irregular work — such as tool shafts, wheel spokes, pulley blocks, gunstocks and shoe lasts — could be mechanized for the first time.

"During my father's long career as a senior engineer with the Royal Ordnance Factories in England," recalls his son, "he was very aware of the important links between the 1856 Royal Small Arms Factory, the gun-making machines of the time purchased from the Robbins & Lawrence Armory in America and the 'American system' of producing interchangeable parts that revolutionized engineering manufacture in England and in the United States."

"We never discussed the American Precision Museum (APM) specifically," Mike said, "but he was very familiar with the historic significance of the cluster of precision gun manufacturing establishments in New England. While I was looking for a home for the Blanchard model lathe after his death, it was not difficult to see that APM had exactly the right type of collection. It was clearly a museum that would appreciate the model's value."



*Working model, Blanchard lathe
 Gift of Mike Jones*

What is Planned Giving?

Tom Smith, a Senior Philanthropic Advisor at the Vermont Community Foundation with over 35 years of planned giving experience, answers questions on a topic we are all hearing more about these days. The museum has been working with the Foundation for a number of years and is now partnering with them to offer our donors the opportunity to make a planned gift to benefit the museum.

What does the term planned giving mean? Aren't all gifts planned?

Planned gifts are designed to be received in the future, as opposed to current gifts which are available immediately. Examples of planned gifts include bequests, retirement plan beneficiary designations and life insurance beneficiary designations. Also included are gifts that pay income to the donor for life, such as charitable gift annuities and charitable remainder trusts.

Why would a donor choose a planned gift instead of making a current gift which can be used right away?

This is not an either/or situation. Some donors choose to endow their annual gift by arranging a more substantial planned gift. Some hesitate to commit to a larger irrevocable gift now out of concern they might need that asset later. Others are looking for a guaranteed steady income in retirement years, or they want to protect long-term capital gains from income tax. Donors have been very creative in the ways they use planned gifts. Working with the Vermont Community Foundation is an excellent way for the museum to help explain the many options that are available. Because of our experience, we can share many stories about how donors have used these products to their advantage.



Tom Smith

Does the Foundation offer a turn-key planned giving service designed specifically for Vermont nonprofits?

Yes, it's one of the many ways the Foundation supports nonprofits beyond grant making. With our planned giving program, nonprofits such as the American Precision Museum, can benefit from a range of giving options—from simple bequests to the more sophisticated charitable gift annuities. We also provide the museum with administrative support for the planned giving program. And all planned gifts set up through the Foundation are guaranteed by our assets.

If donors want to learn more about various planned gifts, how do they do that?

Please call the museum first to discuss your preliminary thoughts and ideas. They will then put you in touch with me directly to answer any further questions and to help you set up a planned gift if you choose to do so.

Art of Action and the American Precision Museum

The Art of Action, Shaping Vermont's Future Through Art, opened in Windsor's new Waypoint Welcome Center October 2-14. The exhibit featured commissioned work by 10 Vermont visual artists, addressing issues identified as essential to the state's economic, environmental and social future. Windsor was one of only 20 Vermont towns chosen to host this exhibit. The Art of Action, produced by the Vermont Arts Council in partnership with Lyman Orton of the Vermont Country Store, was co-sponsored by the museum, Windsor's Downtown Program and the Windsor-Mt. Ascutney Chamber of Commerce.

The artist, Curtis Hale from Danville VT, visited the American Precision Museum during his research phase to take photographs from the museum's second and third floors to capture the aesthetics of constructing bridges, transmission towers and wind turbines, all his themes for his Art of Action work. Hale's study of Mrs. Tewksbury's River Street Garden caught Windsor Highway Department's Jacob Holzwarth eye as he unpacked the exhibit. The exhibit was well received by the community, as was the new Welcome Center!



Jacob Holzwarth holds Mrs. Tewksbury's River Street Garden

Exhibit News

Civil War Exhibit Plans

The 150th anniversary of the Civil War provides the museum with a unique opportunity for new scholarship. Never before have we had the opportunity to explore the significance of this armory building as a Civil War site and the role precision manufacturing of firearms played in shaping the conduct of that war. The firm of Lamson, Goodnow & Yale was operating in our building during the war. They produced machinery which made more than half of the U. S. Model 1861 rifle muskets used during the Civil War. Sharps rifles and Colt revolvers were also produced on machinery developed here.

We plan to explore Vermont's contribution to the war effort, both on the battlefield and on the home front. Working in partnership with other Vermont organizations planning Civil War exhibits and programs, APM will benefit from joint publicity and will be an active partner in producing a wide range of educational opportunities for communities throughout the state. The Vermont Humanities Council awarded us a planning grant for the exhibit. If you are interested in learning more, please contact the museum.

The Waterwheel Pit and Millwork at the Robbins & Lawrence Armory, 1846

This new exhibit features the interpretive drawings from the recently completed study of the museum's waterwheel pit, explaining how the



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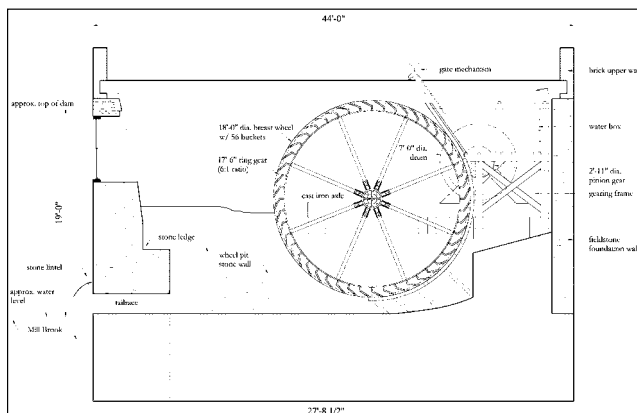
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Mail to: American Precision Museum, P.O. Box 679, Windsor, VT 05089



Wheel Pit Section, historic view circa 1846

museum's building evolved from 1846 to the present. The detailed renderings of the 1846 period show how the headrace carried water from above the nearby Mill Brook dam into the wheel pit in the building's basement to power an iron and wood breast wheel, that was 14' wide and 18' in diameter. The waterwheel provided mechanical power to a

gearing frame beside it that was connected by belts and pulleys to operate the woodworking and metalworking machinery on the upper floors. The drawings in the exhibit are part of a study available as a book in the Museum Shop.