

Smithsonian Affiliate Winter 2015 - Vol. 44 No. 4

# Hagley

MAGAZINE

**SAVE THE DATE**

**Holidays at Hagley**  
November 27 - January 3

**Twilight Tours**  
Tuesday and Wednesday  
Evenings in December

**Invention Convention**  
January 16, 17, 18



**Invention  
Convention  
2016**



# From The Executive Director

*Executive Director  
David Cole*

*Cover: A young visitor  
at Hagley's Invention  
Convention.*

*Back: Visitors enjoy  
a walk at Hagley  
during a snowfall.*

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The scenes are iconic and familiar: the Wright brothers' rickety plane taking flight from the beaches at Kitty Hawk; Alexander Graham Bell shouting through the first telephone, "Mr. Watson, come here—I want you;" and Thomas Edison

basking in the glow of his incandescent bulb. The history of invention in the Unites States is the stuff of myth, a tale of

groundbreaking inventions and larger-than-life creators. Americans can take justifiable pride in their rich heritage of innovation, but could also be excused for drawing some questionable lessons from this history: that inventors are special people born with unusual gifts, that they work in relative isolation, and that their inspirations come to them in "Eureka!" moments.

The truth about innovation is actually a little more complicated. Inventions are typically the products of long hours (even years) of methodical experimentation by people whose talents, while impressive, are not extraordinary. These inventions are often responses to practical problems

in their creators' local environments and do not have world-changing implications. Moreover, the romantic notion of the inventor as a solitary genius is at odds with reality. Inventors are deeply influenced by the people,

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## There is an inventor hidden inside each of us.

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places, and things in their environments and often work in concert with others to make incremental improvements to the status quo.

Hagley offers public programs—such as our ever-popular "Invention Convention"—that encourage visitors to dispel myths, and discover inspiring truths, about innovation. After hours of hands-on fun tinkering with everyday machines, exploring the future of robotics, and creating and "patenting" their own inventions, Invention Convention participants learn the most important innovation lesson of all: that there is an inventor hidden inside each of us. Please join us, January 16-18, and see for yourself!

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## Robotics Rocks Invention Convention

Robots have explored the far reaches of space, the depths of the oceans, and the inner workings of the human body. Now you can explore robots themselves.

Visitors asked for the chance to understand robotics, so it's the theme for Invention Convention 2016, January 16 through 18.

The Martin Luther King, Jr., weekend event will explore the fascinating world of robotics with robotic demonstrations, hands-on engineering challenges, and in-person conversations with professionals who use robots in their daily work. Visitors will discover how the Wilmington Police Department uses bomb robots to dispose of explosive devices. They will also be able to create a series of simple Hagley "robots" using hydraulic pumps, gears, and circuits.

Throughout the event, science shows and live demonstrations will captivate

audiences. Franklin Institute Motions and Machines shows will come to the convention for the first time and Cool Chemistry shows will return.

Visitors will also enjoy Tinkering Tables, Create-an-Invention, and a Hands-on Science Fair. At the Tinkering Tables, families can work together to take apart an electronic gadget to see what it is made of and how it is constructed. Children can harness their creativity while building their own invention at Create-an-Invention. Using everyday household items, children can make an invention that will earn them a Hagley "patent." Community partners will showcase interactive experiments and demonstrations at the Hands-on Science Fair, including handling a space suit built by local company ILC Dover.

*Young guests prepare themselves for the bang during an Invention Convention demonstration.*

### Invention Convention

January 16, 17, 18  
10 a.m. to 4 p.m.

Soda House and Library

Adults \$8

Children 4-14 \$6

Children under 4 and  
Hagley members free

Lunch available from the  
Belin House Organic Café

For details, [www.hagley.org](http://www.hagley.org)

**INTERDIGITAL**

Invention Convention  
is sponsored in part  
by InterDigital, Inc.



Photos by Ashley Schroeder

## Thanksgiving Weekend

Hagley is the perfect place to bring family, friends, and loved ones this holiday season. Thanksgiving weekend will be full of food, shopping, and celebrations.

As a new feature this year, Hagley's Handwork Group will set up a booth on the Friday after Thanksgiving. Stop by to buy handmade goods made with donated materials. All proceeds support education programs at Hagley. Every purchase enables a child to visit Hagley who wouldn't otherwise have the opportunity. That's a holiday gift to be proud of.

The Handwork Group will also demonstrate paper quilling, a nineteenth-century art form. Women would roll, fold, and shape thin strips of paper to create interesting shapes. Watch an artist practice this craft.

Guests can also visit Workers' Hill for a taste of a Victorian Christmas. Stop in the Gibbons' House to sample historical holiday dishes, inspired by *The Hagley Cookbook: Recipes with a Brandywine Tradition* and prepared by Chef Roy Eckbold at the Belin House Organic Café. Climb the stairs to play classic parlor games like Charades or Hide the Thimble. Be sure to bring your camera for a nineteenth-century dress-up opportunity. Visit the Sunday School to make Victorian Christmas ornaments.

Families can have a special holiday experience any day during the holiday season. Stop by the Visitor Center to check out a Holiday Backpack. Discover the different traditions celebrated during the holiday season at Hagley with activities inside.

### Holidays at Hagley Family Activities

November 27, 28, and 29  
11 a.m. to 4:30 p.m.

Hagley's Handwork Group  
Booth Sale - November 27

Holiday Family Backpacks  
November 27 - January 3  
Check them out at the  
Visitor Center

Included with admission,  
free for members

*Visitors can enjoy  
nineteenth-century  
pastimes and parlor games  
Thanksgiving weekend.*



## A Feminine Touch for the Holidays

Lace decorations add to the ambiance of Hagley’s annual holiday exhibition. The theme this year at Eleutherian Mills residence is “A Feminine Touch.”

For centuries, girls and women have handmade lace and whitework embroidered items for clothing and other household uses. The holiday display incorporates lace into decorations, giving it that decidedly feminine touch. All Christmas trees on display feature lace decorations, including the Terrace Room tree with ornaments made from dried Queen Anne’s lace.

Featured throughout the house is a small display of Hagley’s historic du Pont family whitework and lace collections. In the early 1800s, the

daughters of E. I. du Pont (Victorine, Evelina, Eleuthera, and Sophie) became skilled in adorning their clothing and accessories with the then-fashionable style of whitework embroidery. Samples of their shawls, collars, and cuffs sets, plus the patterns that they used, will be on display. Representing later generations of du Ponts is an exquisite Tiffany mother-of-pearl and Brussels lace hand fan, circa 1890, owned by Annie Rogers Zinn (1858-1927).

Well-loved displays returning include the elaborate Twelfth Night celebration in the dining room and the Victorian library’s Christmas for children with its table-top tree surrounded by toys and games. Of course, there will be warm glowing lights and poinsettias.

### Holidays at Hagley

November 27  
through January 3

Included with admission  
“A Feminine Touch” on  
display in the Eleutherian  
Mills residence

### Pair it with Brunch!

Belin House Organic Café  
Weekends November 28  
through January 3,  
11 a.m. to 3 p.m.

*Tiffany mother-of-pearl and Brussels lace hand fan owned by Annie Rogers Zinn.*



Photos by Ashley Schroeder

## Twilight Tours

On Tuesday and Wednesday evenings in December, Hagley will offer an exceptional opportunity to experience the du Pont family residence by the warm winter glow of candles and twilight. Small groups will be guided through the house and get an intimate glimpse at the holiday season as the du Ponts might have experienced it after a long day of gift-making, calling, and merry making.

This year's decorations include a special exhibition of delicate whitework embroidery and lace from the du Pont family collections.

Twilight Tours will begin at the Visitor Center followed by a ride through the powder yards to the residence.

Tuesday, December, 1 is reserved for only Hagley members and their guests. Public tours begin December 2 and continue each Tuesday and Wednesday through December. Tours are on the half-hour beginning at 4:30, with the last tour leaving the Visitor Center at 8 p.m. Reservations are required and can be made by calling (302) 658-2400, ext. 261. A limited number of tickets will be sold for each tour. Admission \$10, free for members and children 5 and under.

Be sure to make your reservations early, as these special tours tend to fill up quickly.

### Twilight Tours

Tuesday and Wednesday evenings in December 4:30 to 8 p.m.

Tuesday, December 1 is for Hagley members only.

Cost: \$10.

Free for members and children 5 and under

Reservations (302) 658-2400, ext. 261.



Photo by Ashley Schroeder

## Hagley WOWs Campers This Winter

A new camp shows children how captivating Hagley is in the winter. Each day of WOW Camp this December is packed with explorations. WOW stands for “Wonders of Winter,” and the camp is designed for children 7 to 10 years old.

The camp offers a fantastic opportunity for parents who are looking for new, fun ways to fill their children’s winter vacation.

WOW camp takes place December 28, 29, and 30. Campers will participate in creative crafts and engaging experiments that reflect the history, science, and innovation of Hagley.

Campers might build a catapult one day and then bake cookies in a cast iron stove the next day. They may even make their own spin art or smoothie on the bike-powered Fender Blender.

Campers can attend one, two, or all three days of the camp. Each day will be different. Discounts are available for campers who attend three days. WOW camp will be staffed with trained Hagley guides assisted by high school student volunteers.

Interested parents should register their children soon; there is a maximum of twenty-five campers per day. For more information about this new winter camp, contact Jeff Durst at (302) 658-2400, ext. 285, or [jdurst@hagley.org](mailto:jdurst@hagley.org).

### WOW Camp

December 28, 29, 30  
9 a.m. to 4 p.m.

Members  
\$60 per day  
\$150 for three days

Non-members  
\$75 per day  
\$200 for three days

Information  
Jeff Durst  
[jdurst@hagley.org](mailto:jdurst@hagley.org)  
(302) 658-2400, ext. 285

Registration  
Donna Johnson  
(302) 658-2400, ext. 256



Photos by Ashley Schroeder

*Hagley's winter events include the popular Science Saturdays and Victorine's Valentine's Day as well as Hagley's new Maker Event and Spark Cart Extravaganza.*

## Winter Wonders at Hagley!

The weather outside may be frightful, but spending time at Hagley during the winter months is delightful!

Winter is a wonderful time to visit Hagley. It is often less crowded, the air is crisp and clear, and special tours and programming are offered.

During the week, guided tours of the property include stops in the powder yards, Workers' Hill, and the du Pont family Residence. Tours leave from the Visitor Center at 10:30 a.m. and 1:30 p.m. Every Saturday, indoor family programs enhance your visit and spark your imagination.

### Science Saturdays

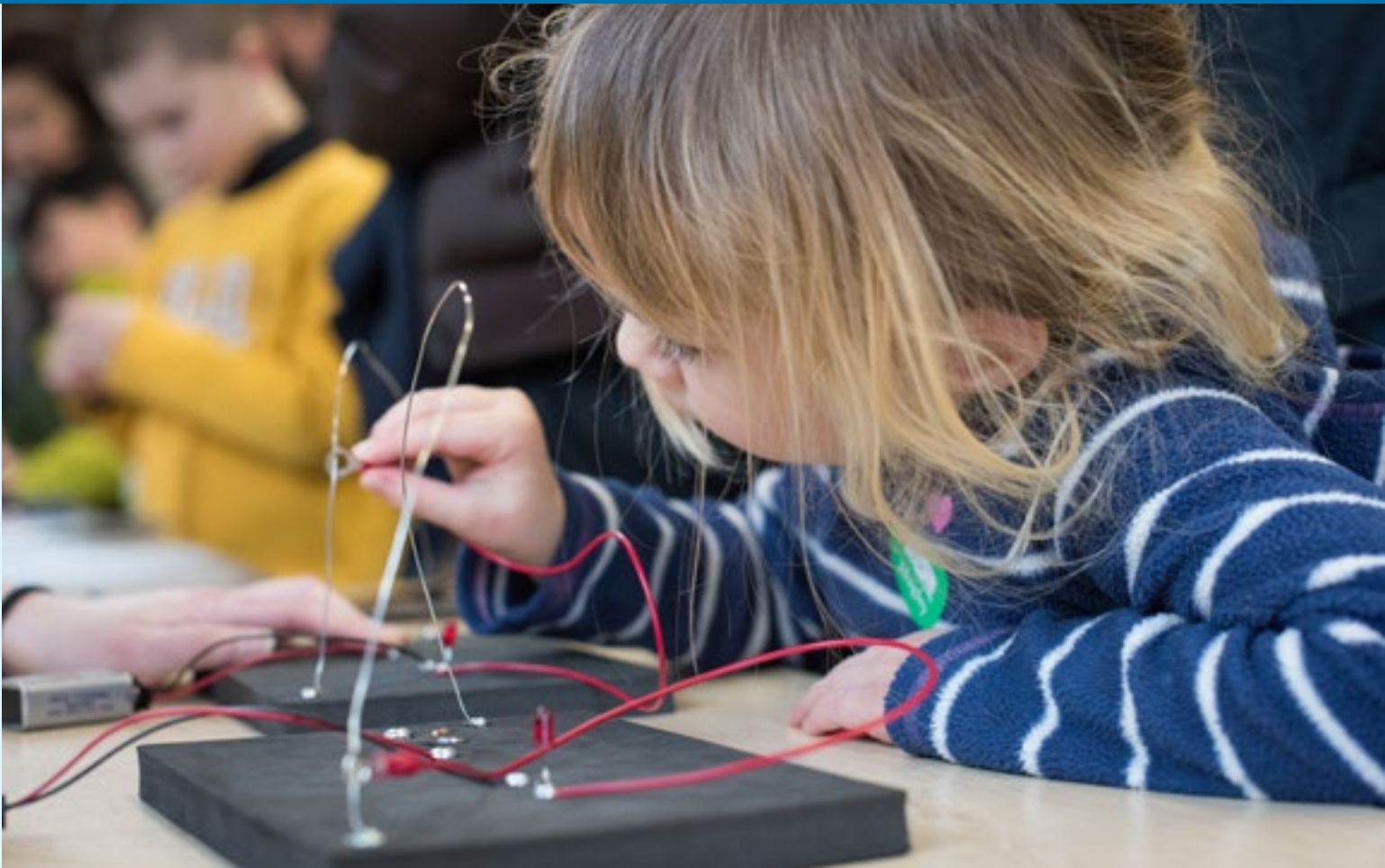
The whole family will be challenged to solve a problem using science. January 9 is "Float Your Boat," during

which visitors will learn about density and buoyancy while building a boat that will carry the largest load possible. "Bridge the Divide" on January 23 focuses on structural engineering while challenging kids to build their own bridge. Help "Move the 'Powder Keg'" on February 6 while discovering different simple machines. Then build a hydraulic-powered machine on February 27 at "Pump It Up!" The final Science Saturday of winter on March 12 focuses on "The Science of Nylon."

### SparkCart Extravaganza

Discover what Hagley's youth volunteers have been up to on January 30. Hagley recently introduced the SparkCart—a mobile activity station that moves throughout the property.





At the Extravaganza, teen volunteers will present the whole range of cart programs in one day.

### **Victorine’s Valentine’s Day**

This classic program is back for another year of handmade cards, sweet treats, and Victorian traditions. Celebrate Valentine’s Day by decorating a candy bar wrapper, designing Valentine’s Day cards, and nibbling on a fresh-baked gingerbread heart.

### **Hagley’s Maker Event**

Create and Innovate at Hagley! Enjoy a family-friendly festival of invention, creativity, and resourcefulness, and a celebration of the Maker movement.

## **Winter Family Programming Event Schedule**

### **Science Saturday: Float Your Boat**

January 9 – Saturday – 1 to 4 p.m.

### **Science Saturday: Bridge the Divide**

January 23 – Saturday – 1 to 4 p.m.

### **SparkCart Extravaganza**

January 30 – Saturday – 11 a.m. to 4 p.m.

### **Science Saturday: Move the “Powder Keg”**

February 6 – Saturday – 1 to 4 p.m.

### **Victorine’s Valentine’s Day**

February 13 – Saturday – 11 a.m. to 4 p.m..

### **Maker Event**

February 20 – Saturday – 11 a.m. to 4 p.m..

### **Science Saturday: Pump It Up**

February 27 – Saturday – 1 to 4 p.m.

### **Science Saturday: The Science of Nylon**

March 12 – Saturday – 1 to 4 p.m.

*Science Saturdays encourage visitors of all ages to explore science problems by engaging in critical thinking.*

# GOLDEN PHEASANTS GAME DINNER



## Prohibition is Over!

### Game Dinner 2016

Saturday, January 30  
Cocktails at 6 p.m.  
Followed by talk and dinner

\$150 for members  
\$185 for nonmembers

Bad weather date  
Sunday, January 31

For reservations and  
information, contact Kim  
Kelleher at [kkelleher@hagley.org](mailto:kkelleher@hagley.org) or (302)  
658-2400, ext. 235.

### Golden Pheasants Committee:

Roniece & Henry duPont  
Anne & Phil Annone  
Tracy & Brian Fuchs  
Robin & Jeffrey Kusumi  
Anne & David Lyons, Jr.  
Megan & A.J. McCreary  
Mark Talley

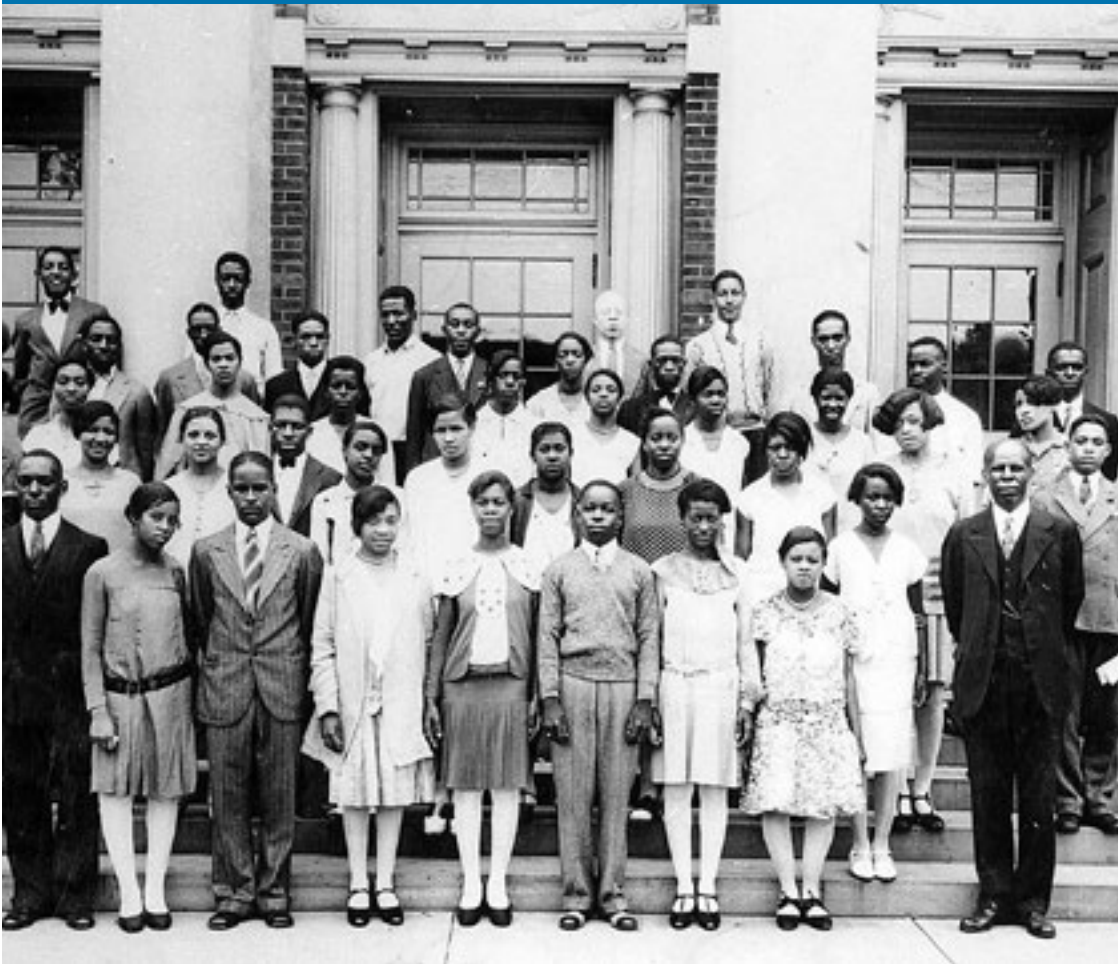
Get dolled up in your glad rags and head off to our juice joint, the Hagley Soda House, for this fun 1930s prohibition-themed Game Dinner, sponsored by the Golden Pheasants on Saturday, January 30.

Cocktails begin at 6 p.m. followed by a talk and dinner. During cocktails guests can participate in a silent auction and raffle featuring jewelry and accessories from Out of the Box, a case of French wine to smuggle back to your private residence, and more.

The dinner features a talk by Erik Rau, Hagley's director of library services, about Prohibition and the role of du Pont family members in its repeal. Hagley will also have on display some treasures from its collection highlighting the du Pont family's role. Catered by

the Wilmington Club, this five-course dinner is paired with wine selected and described by Alain Blanchon. This year's menu features curried warm apple bisque, marinated and roasted quail stuffed with fennel and venison sausage, roast loin of elk in bathtub juniper gin sauce, mixed greens with smoked trout, and a Hagley Cannonball in a bourbon vanilla sauce for dessert.

Dinner tickets are \$150 for members and \$185 for non-member guests. Reservations required. Invitations will be mailed to Golden Pheasant members in December. Contact Kim Kelleher in the membership office for more information, (302) 658-2400, ext. 235. Bad weather date is Sunday, January 31.



## Oral History Project Office Opens

With generous support from the family and friends of the late Mary Laird Silvia, a benefactor of scholarship at Hagley, the library has created the Hagley Oral History Project Office. Gregory Hargreaves is its first manager. Hargreaves was a fellow in the UD-Hagley Program in the History of Industrialization, and at Hagley launched the “Stories from the Stacks” podcast series, featuring interviews with scholars using the library’s collections.

With training in American industrial history as well as years of experience in radio, he is uniquely suited to develop and manage Hagley’s oral history program. Soon after opening, Hagley took oral histories with former DuPont Company powder yard workers and their families as part of its efforts to

historically interpret its site. In the 1990s and early 2000s, Hagley embarked on an ambitious oral history documentary project supported by the Longwood Foundation, “A Separate Place: The African American Schools P. S. du Pont Built” (2001). Last summer, the library launched an oral history series documenting the development of Kevlar at the DuPont Company.

Along with electronic records preservation, oral history has become increasingly important in recent years to document the historical development of business organizations. The library’s current and potential depositors of collections have expressed interest in supporting oral history projects that will do just that.

*Left: Howard High School, 1929, from Hagley’s “A Separate Place” oral history documentary.*

*Top: Hagley Machine Shop workers, 1885.*

*Bottom: Tree dedication ceremony for Mary Laird Silvia in July of 2013.*



## DuPont Gunpowder Workers

### Artifacts

The museum is always seeking artifacts owned by DuPont powder workers. Please contact Debra Hughes, curator of collections and exhibits, at [dhughes@hagley.org](mailto:dhughes@hagley.org) or (302) 658-2400, ext. 308, for more information.

*Violin and steerage trunk, part of the 200-piece collection of items owned by DuPont Company workers.*

From 1802, when E. I. du Pont moved to the Brandywine, until the manufactory closed in 1921, the DuPont Company relied on its diverse group of workers, both natural and foreign-born, to produce its high-quality gunpowder. The museum documents these workers through a 200-piece collection, which includes the steerage trunk and violin seen here.

Many workers emigrated from Europe to start new lives on the Brandywine. Edward Beacom was a farmer in County Fermanagh in northern Ireland who traveled in steerage aboard a ship from Liverpool, England, arriving in Philadelphia in 1870. All of his cherished belongings were packed in the small trunk (8 inches high by 14 inches long and 10 inches deep) that still has its

steerage label. When DuPont celebrated its 200th anniversary at Hagley in 2002, DuPont employee Edward Beacom IV, now retired, attended to represent the fourth generation of his family to work for the company.

One pastime of the workers is demonstrated through this German-made violin owned by Eben T. Jones, who began working for DuPont in 1890. Jones became a member of the Tankopanicum Musical Club, which had been founded by Alfred I. du Pont in the 1880s. Tankopanicum is a Native American word for Brandywine. Other instruments used in the band in the collection include another violin, clarinets and a baritone horn.

6	Ale 100	60	127	68
	1 Cooler	60	158	85
	Together	60	126	67
8	Ale 100	60	123	65
	1 Cooler	60	148	83
	Together	60	126	67
10	Off 100	60	123	72
	Together	60	128	68
13	Porter 100	60	112	57
	1 Cooler	60	132	71
	Together	60	113	58
15	Porter 100	60	117	61
	1 Cooler	60	140	77
	Together	60	115	59
17	Porter 100	60	114	59
	1 Cooler	60	133	72
	Together	60	117	61
20	Off	60	130	70
	Together	60	128	68
22	Porter 100	60	121	63
	1 Cooler	60	147	83
	Together	60	123	65
24	Porter 100	60	116	60
	1 Cooler	60	140	77
27	Porter 100	60	120	63
	1 Cooler	60	138	75
	Together	60	122	64
29	Ale 100	60	128	68
	1 Cooler	60	144	80
	Together	60	120	63
31	Ale 100	60	123	65
	1 Cooler	60	140	77
	Together	60	120	63
Feb 3	Off 100	60	101	69
	Together	60	134	73
5	Ale 100	60	126	69
	1 Cooler	60	155	89
	Together	60	132	71
8	Porter 100	60	102	51
	1 Cooler	60	136	74
	Together	60	120	63
10	Porter 100	60	112	57
	1 Cooler	60	133	72
	Together	60	112	57
12	Off	60	130	70
	Together	60	128	68

## Rare Brewer's Log Book Acquired

How beer was made almost two centuries ago is documented in a brewer's log book recently acquired by the Manuscripts and Archives Department. The log book of Philadelphia Brewmaster Thomas Morris covers 1820 through 1827 and is unusual as few brewers' logs exist from the first half of the nineteenth century.

Brewers use log books to record information about each batch of beer, such as the ingredients and measurements, and to document the progress and character of each brew. Morris primarily recorded information about porter and ale brews in this log and noted the "weight of worts" or measurement of the liquid's specific gravity.

Thomas Morris (1774-1841) was a fifth-generation member of the Morris family in Philadelphia, known as

brewers, merchants, land speculators, manufacturers, and prominent participants in public affairs. His business, the Thomas Morris & Co. Brewery, operated from 1812 until 1829. It was on Second Street above Arch Street, the site of the family's brewery and malt house since 1745.

The brewer's log book is an important addition to Hagley's collection of Morris family papers and to the library's collection of brewing publications and visual images. Brewers' logs, such as that of Thomas Morris, provide a rare insight into the nature of American historic beer and can inspire present-day craft brewers to recreate historic beers.

*Detail from Thomas Morris's log book.*

*To learn more about this brewer's log book, contact Hagley at [askhagley@hagley.org](mailto:askhagley@hagley.org) or visit [www.hagley.org/ask-hagley](http://www.hagley.org/ask-hagley).*



Top: Detail from 1937 advertisement for the Ford "60" and "85."

Bottom: Cover image from a Plymouth brochure from the late 1960s.

Right: Detail from advertisement for the Hupmobile Eight, 1927.

## Automotive Historians Honor Library

For the library's work in preserving the Z. Taylor Vinson Transportation Ephemera Collection, the Society of Automotive Historians awarded Hagley the 2015 James J. Bradley Distinguished Service Award.

The society gives the Bradley Award annually "to deserving archives and libraries for exemplary efforts in preserving motor vehicle resource materials." The Vinson collection arrived at Hagley in 2010, after the death of Vinson, an inveterate collector of car sales literature, who served as president of the society and editor of its journal, the *Automotive History Review*.

Hagley was awarded a grant from the Council on Library and Information Resources to catalog the collection in a three-year project. At more than 700

cubic feet, it is the largest collection of these materials available to the public for research and covers cars from around the world from 1894 through 2009. The collection opened in early 2014 and became the basis of Hagley's current exhibition, "Driving Desire: Automobile Advertising and the American Dream."

Bradley curated the world's largest automotive history collection, the National Automotive History Collection at the Detroit Public Library. He served on the society's board of directors and a number of library and automobile organizations. Hagley Curator Max Moeller, who oversaw the cataloging of the Vinson collection and who organized Hagley's exhibit, accepted the honor.



## What Drove the du Ponts

The lifestyle of owning a luxury automobile in the 1920s included the weekend jaunt into the countryside to enjoy nature.

This delightful “motor restaurant, running board style” luxury picnic set for four was made to be strapped to the running board of an automobile. It is on display in the exhibition, “Driving Desire,” in the Hagley Visitor Center gallery. Made by the Berg Auto Trunk and Specialty Company, the circa 1928 picnic set was owned by Jean Austin du Pont and was mounted on the running board of her Pierce Arrow. Located on Long Island in New York, Berg specialized in making luggage to fit in and on automobiles.

After visiting “Driving Desire,” visitors can ride the bus up to the upper

property where Hagley’s three du Pont family automobiles are on display in the lower level of the Eleutherian Mills Barn. The highlight of the exhibition is the Du Pont Motors, 1928 Phaeton, Model G802, owned by company founder E. Paul du Pont.

Du Pont Motors, which operated between 1919 and 1932, also made a child-sized speedster between 1930 and 1932. Its design was based on a speedster that ran in the 1929 “24 Hours of Le Mans” race. The third automobile on display is a rare 1912 Detroit Electric car made by the Anderson Carriage Company. Pierre Samuel du Pont purchased four of these to give to his sisters, including this one which was given to Louisa d’Andelot du Pont Copeland.

*Hagley’s three du Pont family automobiles, displayed in the lower level of the Barn near Eleutherian Mills.*

*Inset: Running board style luxury picnic set.*



Photo by Ashley Schroder

*Behind-the-scenes view of the "Hearts Apart" photo shoot held at Eleutherian Mills in 2013.*

## Serving Those Who Serve Others

Hagley recognizes that life presents special challenges for military families, including frequently changing communities, single-parenting responsibilities, and financial challenges. As a way to acknowledge the contributions of military personnel, on Veterans Day, November 11, Hagley announced a partnership with USO Delaware that includes a new museum admission policy. All currently serving military and their families will be admitted to Hagley for free. Through free admission, Hagley wants to provide a place where military families can be together, learn about their community, and have fun without impacting their pocketbook.

As a partner, USO Delaware locations in Dover and New Castle

County will help spread the word within Delaware's military community about Hagley's programs, special events, and volunteer opportunities. The USO will also be invited to participate in several of Hagley's annual events, like Bike and Hike, the Hagley Car Show, and Victorine's Valentine's Day, where in 2016 guests will be invited to make valentines for Delaware military service people serving overseas.

In addition to free admission for currently serving military, Hagley will also each year offer complimentary admission to retired military personnel on Memorial Day, July 4, and Veterans Day. Hagley has a shared history with the American military and looks forward to a shared future as well.





Photos by Ashley Schroeder

## Meeting STEM Needs

Hagley strives to produce affordable programs to inspire young men and women to pursue careers in science, technology, engineering, and mathematics. Through your time, talents, and donations, Hagley has created programs to meet these STEM needs.

For example, Hagley developed a workshop series called "Engineering Endeavors!" for grades six to eight. Each workshop, held at Hagley, focuses on a particular branch of engineering. Topics include an introduction to Hagley (explosions and structural strength); building blocks (simple machines and catapults); electrical engineering (electrical circuitry, magnetism, and power); civil engineering (building bridges); chemical engineering (science of polymers); and culminating in a

final activity, bringing it all together (engineering challenges). The six-week workshops include demonstrations and hands-on activities.

One partner is Serviam Girls Academy in New Castle, Delaware. Serviam, which is taking part in this new program without cost, is a tuition-free, independent middle school in the Ursuline tradition for young women of all faiths from low-income families. Serviam challenges students to become leaders who serve their families and the needs of society through a rigorous academic program and the development of the whole person in an atmosphere of respect and responsibility.

Your donations make our STEM programs possible. Thank you for your continued support!

### 2015 Annual Fund

There is still time to make a donation to the 2015 Hagley Annual Fund to support educational programs at Hagley. Please contact Jill MacKenzie, (302) 658-2400, ext. 302, [jmackenzie@hagley.org](mailto:jmackenzie@hagley.org).

*Hagley's programming encourages young participants to explore science and engineering concepts.*



## SparkCart Inspires Youth Leaders

*Young visitors participate in a SparkCart activity.*

*Recruitment for the spring 2016 session will start in January 2016. Visit [www.hagley.org/ylp](http://www.hagley.org/ylp) for more information.*

Biomimicry, a water wheel, and pulleys are the heart of the new SparkCart, and the cart is the heart of a new program for high school volunteers.

For the past year, Hagley staff and youth volunteers have been giving the Youth Leadership Program a creative makeover to increase the number of students reached and opportunities to serve Hagley and its guests. The new program offers three levels of engagement for high school students – conducting hands-on activities for Hagley guests, creating hands-on activities, and participating as team members for special projects. All three levels include training, group activities, mentoring, and opportunities to give back to the community. The program builds life

and leadership skills while also creating friendship networks and having fun.

The SparkCart is a mobile activity station created, staffed, and shared with the public by the youth volunteers. Look for the blue and white umbrella and discover how innovators are inspired by the natural world at “Inspired by Nature.” Get splashed by a water wheel at “Water Power,” and play with “Pulleys” to learn more about this simple machine.

After facilitating activities with the SparkCart, volunteers can apply to be interns with the design team and help develop new activity kits. These kits will be tested, approved, and launched three times a year.



Photos by Ashley Schroeder

## Invention Convention Volunteers

How many volunteers does it take to spark a young inventor's interest? Sometimes just one; however, at Hagley's Invention Convention in January, it can take nearly 200 volunteers over three days. Volunteers join paid staff in stimulating children's imagination, creativeness, inquisitiveness, and exploration.

This year's theme of robotics is sure to be popular. Volunteers assist with hands-on science/robotic activities, help younger visitors with making their inventions, re-stock the tinkering shelves with items for kids to take apart, and help recycle the pieces and parts that are generated through the invention creation process.

Volunteers are also needed to greet visitors at the admission area and orient them to the event. Individual volunteers and groups from schools and businesses work together as teams in specific areas to aid in this amazingly fun learning experience. No science or robotic experience needed, and training is provided. Volunteer to see the next generation of innovators and inventors get their start.

To begin your volunteer experience at Hagley, please visit [www.hagley.org/volunteer](http://www.hagley.org/volunteer) or call Volunteer Manager Angela Williamson at (302) 658-2400, ext. 257.

*Volunteers help out in many different ways at the Invention Convention, from assisting young visitors to awarding "Hagley Patents."*



*Participants and Hagley staff at the Smithsonian Innovation Festival.*

*Hagley became Delaware's first Smithsonian Affiliate in 2014. As an affiliate, Hagley collaborates with the Smithsonian to host exhibits and educational programs, while also having access to the Smithsonian's vast resources.*

## Smithsonian Innovation Festival

At the end of September, Hagley had the distinction of being the only Smithsonian Affiliate to participate in the Smithsonian Institution's second annual Innovation Festival.

Hagley was invited because of its interpretive focus on innovation. Stationed inside the Smithsonian's newly reopened interactive Spark!Lab, several Hagley staff members presented activities developed for Hagley's SparkCart, which launched this fall. Through these hands-on activities, 2,300 Smithsonian visitors of all ages discovered how inventors have been inspired by biomimicry and how water power transmits power through simple machines.

The festival has been a partnership between the Smithsonian and the U.S. Patent and Trademark Office. Held in

the newly opened Innovation Wing at the National Museum of American History in Washington, the festival celebrated American ingenuity and featured demonstrations, hands-on activities, and presentations by inventors and researchers.

The festival is designed for the public to interact with national companies and institutions such as Ford Motor Company, Solar Turbines, Inc., Mars, Inc., and NASA to showcase their latest technological developments. Examples of new technologies include WiperFill, a kit that converts water into wiper fluid, and the Braigo Braille printer, designed by a seventh-grader using a Lego Mindstorms EV3 kit.

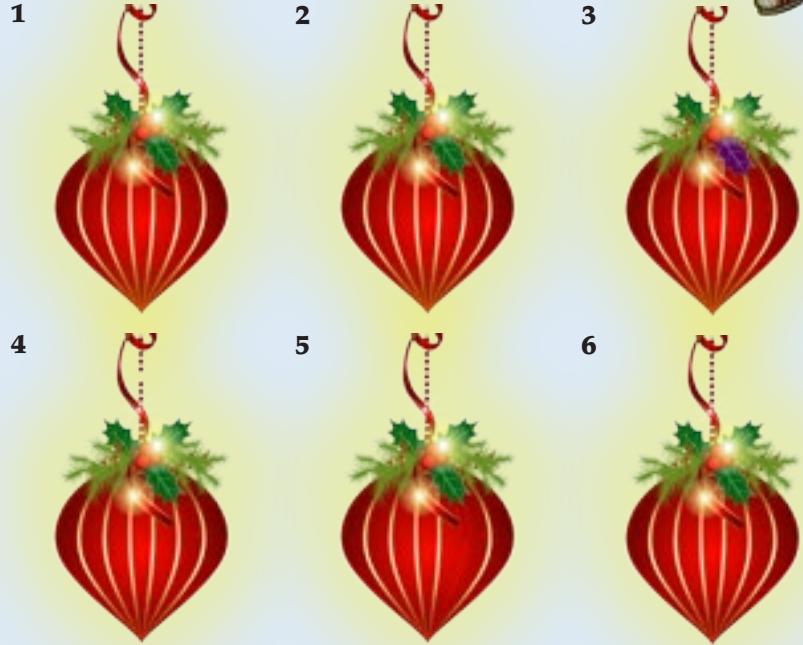


**VALENTINE'S DAY TRIVIA**

Hagley offers wonderful programming during the winter months, including Science Saturdays and Victorine's Valentine's Day. Here are some facts about Valentine's Day:

- In Victorian times it was considered bad luck to sign a Valentine's Day card.
- About three percent of pet owners will give Valentine's Day gifts to their pets.
- About one billion Valentine's Day cards are exchanged each year.
- In Finland, Valentine's Day is called Ystävänpäivä, which translates into "Friend's day." It is more about remembering your friends than your loved ones.
- In the Middle Ages, young men and women drew names from a bowl to see who would be their Valentine. They would wear this name pinned onto their sleeves for one week for everyone to see. This was the origin of the expression "to wear your heart on your sleeve."
- More than 35 million heart-shaped boxes of chocolate will be sold for Valentine's Day.

At **Holiday Family Programming** on November 27, 28, and 29, you can play parlor games and make Victorian christmas ornaments. Which two ornaments below are exactly alike?



ANSWERS: ORNAMENTS TWO AND SIX ARE EXACTLY ALIKE.

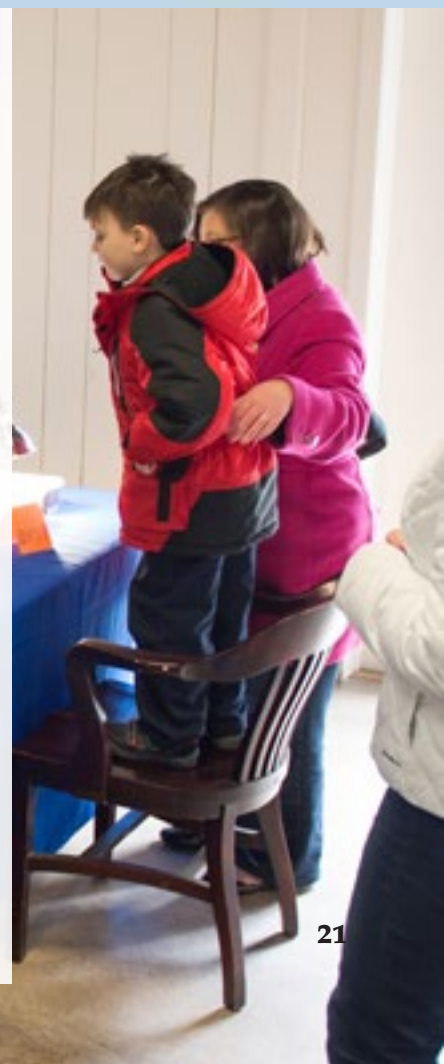
**SCIENCE SATURDAY WORD SEARCH**

Science Saturdays are held from 1 to 4 p.m. December 12 is **Color and Light**, January 9 is **Float Your Boat**, and January 23 is **Bridge the Divide**. Find the words related to **color**, **light**, **boats**, and **bridges** below.

**WORD LIST**

- RED
- ORANGE
- YELLOW
- BLUE
- INIGO
- VIOLET
- SAIL
- BEAM
- STERN
- BOW
- DECK
- HULL
- BEARINGS
- DRAINAGE
- FOOTING
- FOUNDATION
- PARAPETS
- PIERS

D A M O H N S L S V E T A M S P D B L I A S B T O  
 X K C O K O Z T P R Q L N N S I R W E R X C G A R  
 P J Z B A X J W E E A T H H M E A P M A R O U V I  
 G N I T O O F O R R H B Q D E R I V E J R E Y A L  
 H X H L F R Q L O J N R K G R S N A S L T I G E W  
 I P N H E F T L L D S B E T W A A G Y E J P N N D  
 V E B B T G S E Y R E D O G Y X G C L R F V M G P  
 K I N I G O N Y W U G Q U W J M E O A Q C X D A S  
 E U B I E P N A N E D O S V V Z I M J G N D R G U  
 O H J Z Q F G R R N X O Q H X V K T A A R A I B P  
 V R W R X N G W R O S P L I O R C P V E P M A M Z  
 Y F Q J G X W D E R X A L I Z Y E K K E B Z L N J  
 Z H X R R P D N U K I P B D D I D G T K A L U T M  
 B B A P D U H V O J G L Y Q B J H S W Y U M E W H  
 P I Z L A S Y K R L U X E P F N D V P H K N N Z Z  
 P F P H L L Q G S E O F O U N D A T I O N W C Y U  
 J B T Q Q K R H R N U Q R N G I R S F X Q V Z Q T



Hagley is open daily, year-round, at 10 a.m. and closed Thanksgiving Day and Christmas Day.

The Belin House Organic Café is open daily 11 a.m. to 3 p.m.

For guided tours, research library hours, and event details, visit [www.hagley.org](http://www.hagley.org).



Photo by Ashley Schroeder

Enjoy nineteenth-century parlor games and dress up at Holidays at Hagley.

Unless otherwise noted, activities listed below are included with admission and free for members and children five and under.

## Weekends through November Walking Tours at Hagley

Hagley will offer in-depth, hands-on walking tours on weekends at 11 a.m. and 2 p.m. Learn about gunpowder production, water power, Brandywine Valley geology, the stories of immigrant workers, and Hagley's gardens. For a complete schedule and tour descriptions, visit [www.hagley.org](http://www.hagley.org).

## Science Saturdays – 1 to 4 p.m.

Experiment and innovate with our series of family activities: Science Saturdays! Families work creatively together to solve a problem or make an improvement. Visit [www.hagley.org](http://www.hagley.org) for dates and topics.

## November 19 – Thursday – 6:30 p.m. Research Seminar

Rachel Gross, University of Wisconsin-Madison, presents "Miracle Materials: Synthetic Fibers and the Construction of Comfort in Outdoor Recreation." Attendees are encouraged to read the paper in advance. For a copy, contact Carol Lockman, [clockman@hagley.org](mailto:clockman@hagley.org). Held in the Library Copeland Room, use Library/Soda House entrance.

## November 27, 2015 – January 3, 2016 Holidays at Hagley

The 1803 du Pont family ancestral home, Eleutherian Mills, will feature holiday decorations and interpretation on the French traditions of exchanging gifts on New Year's Day and the celebration of Twelfth Night.

## November 27, 28, and 29 Friday, Saturday, Sunday – 10 a.m. to 4:30 p.m. Holiday Family Programming

Bring family and out-of-town guests to explore Hagley's holiday traditions. Sample nineteenth-century holiday dishes like roast duck, play hide-the-thimble and other parlor games, and make Victorian Christmas ornaments.

## Weekends, November 28 through January 3 Belin House Brunches

The Belin House Organic Café will serve an à la carte brunch menu Saturdays and Sundays, November 28, 2015, through January 3, 2016. The special holiday brunch menu features made-to-order omelets, pumpkin leek soup, open-faced roasted turkey sandwiches, Maryland crab cakes, warm apple cider, and more. The Belin House Organic Café is self-service with self-seating. The café is open 11 a.m. to 3 p.m. No reservations necessary.

## December Tuesdays and Wednesdays 4:30 to 8 p.m. – Twilight Tours

Experience the du Pont family residence by the warm winter glow of candles and twilight. This year's decorations include a special exhibition of delicate whitework embroidery and lace from the du Pont family collections. The December 1 Twilight Tour is for members only. Reservations required, (302) 658-2400, ext. 261.

## December 10 – Thursday – 6:30 p.m. Research Seminar

Benjamin R. Cohen, Lafayette College, presents "The First Food Police: Controlling Homes and Bodies in the Gilded Age." Attendees are encouraged to read the paper in advance. For a copy, contact Carol Lockman, [clockman@hagley.org](mailto:clockman@hagley.org). Held in the Library Copeland Room, use Library/Soda House entrance.

## December 28, 29, and 30 – 9 a.m. to 4 p.m. Wonders of Winter (WOW) Camp

Looking for a fun new way to entertain your children during their winter vacation? Hagley's WOW camp offers creative crafts and engaging experiments that reflect the history, science, and innovation of Hagley. For information, visit [www.hagley.org](http://www.hagley.org) or contact Jeff Durst at [jdurst@hagley.org](mailto:jdurst@hagley.org) or (302) 658-2400, ext. 285.

## January 16, 17, 18 Saturday, Sunday, and Monday – 10 a.m. to 4 p.m. Invention Convention

Take an action-packed robotics adventure! This year's Invention Convention features hands-on robotics activities, different science shows every day, and areas to create and tinker. Adults \$8, children 4-14 \$6, children under 4 and Hagley members free. Lunch available from the Belin House Organic Café. Use the Library/Soda House entrance.

## January 30 – Saturday – 11 a.m. to 4 p.m. SparkCart Extravaganza

Discover all the new SparkCart activities in one day!

## January 30 – Saturday – 6 p.m. Golden Pheasants Game Dinner

Prohibition is over! Celebrate with a five-course dinner with wine pairings. \$150 for members, \$185 for nonmembers. For information and reservations, contact Kim Kelleher at [kkelleher@hagley.org](mailto:kkelleher@hagley.org) or (302) 658-2400, ext. 235.

## February 13 – Saturday – 11 a.m. to 4 p.m. Victorine's Valentine's Day

Celebrate Valentine's Day by decorating a candy bar wrapper, designing Valentine's Day cards, and nibbling on a fresh-baked gingerbread heart.

## February 18 – Thursday – 6:30 p.m. Research Seminar

Rebecca Kobrin of Columbia University presents, "A Credit to the Nation: Jewish Immigrants, the World of Immigrant Banking and American Finance, 1873-1914." Attendees are encouraged to read the paper in advance. For a copy, contact Carol Lockman, [clockman@hagley.org](mailto:clockman@hagley.org). Held in the Library Copeland Room, use Library/Soda House entrance.

## February 20 – Saturday – 11 a.m. to 4 p.m. Maker Event

Create and Innovate at Hagley! Enjoy a family-friendly festival of invention, creativity, and resourcefulness, and a celebration of the Maker movement.

Connect with us!





Photos by Ashley Schroeder

# Winter, Jewelry, and Gingerbread

## 1) Juniper Pin and Earrings

Artist Michael Michaud created this lovely Juniper Pin and Earrings capturing each natural detail of the original. Silver Seasons fine craftsmen hand finish each design. Made in the USA. Hand patinaed bronze with fresh water pearls.

*Earrings Item #49211 - \$76.95*

*Pin Item #49163 - \$126.00*

## 2) Winter's Coming - A Story of Seasonal Change by Jan Thornhill, Illustrated by Josee Bisailon

Nature Lovers will delight in this charming picture book about one very young Snowshoe Hare and her way of adapting to her changing environment.

*Item #6322 - \$17.95*

## 3) A Year of Gingerbread Houses by Kristine Samuel

Nothing is more enticing for any holiday or special occasion than a lusciously decorated gingerbread house. With designs for Christmas, Halloween, Valentine's Day, and birthdays, these exquisite projects include a cottage, chalet, and two-story house.

Options such as customized windows, doors, chimneys, paths, trees, topiaries, and even lighting add to the charm. More than 200 helpful step-by-step process shots; informative sections on tools, techniques, and components; and patterns, piping templates, and tips on baking, assembling, and troubleshooting assure magical results.

*Item #6842 - \$19.95*

### Hagley Store Information

Hagley members receive a 10 percent discount at the Hagley Store.

Open daily at 10 a.m.  
Closes thirty minutes after museum closing time.  
(302) 658-2400, ext. 274

### Members Holiday Sale

November 13, 14, & 15  
Hagley members can enjoy a 20 percent discount off the entire store.  
Free gift wrap on purchases more than \$50!



# Hagley

MAGAZINE

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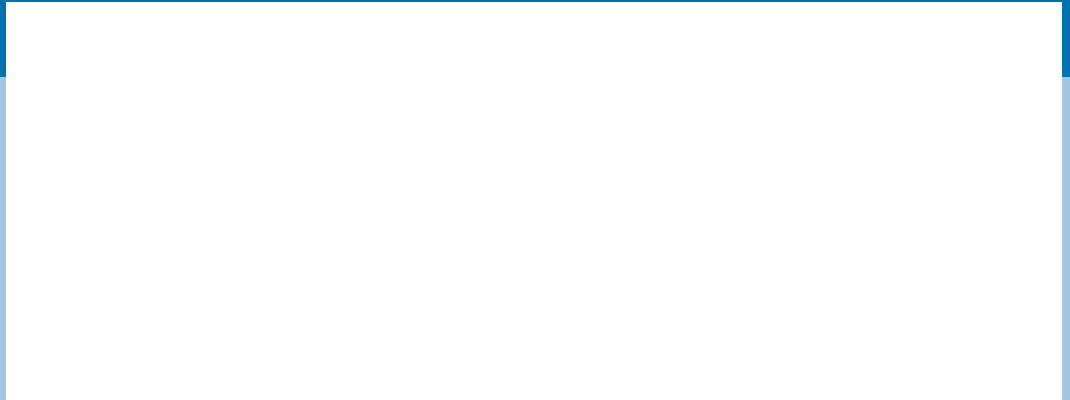


Photo by Ashley Schroeder