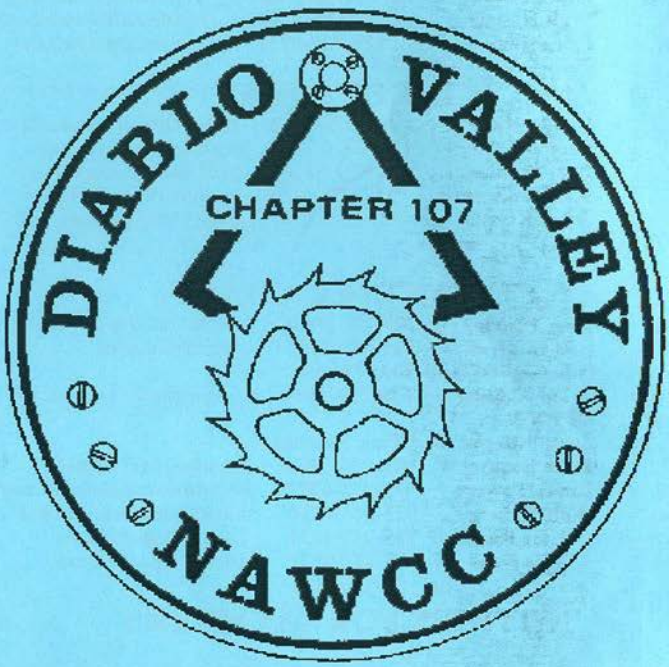
BULLETIN



June 2018
Volume 237

DIABLO VALLEY

Chapter 107
National Association of Watch and Clock Collectors
net.nawcc.org/chapter107
email account chapter107nawcc@gmail.com

Chapter Established March 5, 1978

"Accent on Education"

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NOTICES FOR MEMBERS

(The Bulletin accepts notices from Chapter members for all items/subjects horological - wanted, for sale, giveaway, services, and so forth. There is no charge. All you have to do is supply copy to the editor.)

Wanted: Articles for the *Bulletin*. Contact Tina Thomas (209) 481-3930. Or email ch107bulletin@comcast.net.

Meeting Notice

June 10, 2018
Mart 10:30 Meeting Noon

Grange Hall, 743 Diablo Rd, Danville

Harboring a Horological Ménage a Trois in the Family Room

Price Russ

Price will discuss "marrying" three components to make one precision regulator and its performance over the first year. (This is an update of a talk presented to Chapter 5 with twice as much accumulated performance data.)

Display:
Share something horological that has attracted your attention recently - a book, tool, clock, watch, part, problem, whatever. A display case will be available for your use.

Special Joint Meeting and Open House

Sacramento Valley Chapter #71 Meeting

July 22, 2018
Doors open at 9:30 AM
Meeting about 11:00 AM
3300 McKinley Blvd, Sacramento
(in McKinley Park)

From Capitol City Freeway / Business 80 East take the H Street exit; turn right at H Street, then left at 33rd Street, and right at McKinley Blvd. Parking lot is in the rear and can be accessed from Park Way.

After the meeting

Visit Vince and Phyllis Angell's Home
See their amazing collections
Enjoy refreshments
2757 Coleman Way, Sacramento

Get on I-80BUS W from McKinley Blvd and Alhambra Blvd
Continue on I-80BUS W. Take S Sacramento Fwy and CA-99 S to 12th Ave. Take exit 297 from CA-99 S
Continue on 12th Ave. Drive to Coleman Way

Carpooling will be discussed at the June Chapter 107 meeting

Learn About Precision Pendulum Clocks

For anyone wanting to learn about precision pendulum clocks, there are a number of excellent books on the subject. They range from easy for anyone to read and understand to the highly technical. The books by Derek Roberts are a good place to start. They have nice color photographs and quit readable text. All are available on the internet or for loan from the NAWCC library.

"Precision Pendulum Clocks" (1986)

"Precision Pendulum Clocks: The Quest for Accurate Timekeeping "(2003)

"English Precision Pendulum Clocks" (2003)

"Precision Pendulum Clocks: France, Germany, America, and Recent Developments" (2004)

The more technically minded might enjoy the following

"My Own Right Time" by Philip Woodward

"Woodward on Time " published by the BHI

"Accurate Clock Pendulums"
by Robert J. Matthys

"The Science of Clocks and Watches"
by A. L. Rawlings

The Atkins Clock Manufacturing Company of Bristol, Connecticut. This very rare 30-day shelf model is called the Gilt Parlor.

This is a very interesting and rare mantel clock made by the Atkins Clock Manufacturing Company of Bristol, Connecticut.
The case appears to be constructed in white pine is architecturally designed. The fancy decorations and various details are formatted in gesso. These surfaces have been gilt painted in a gold foil. This treatment is original to this example and is in my opinion, in excellent original condition for the clock's age. The minor areas of loss to both the decoration and to the gilding are not significant.
This case sits on a large molding that rests flat on the shelf. The front two corners have been blocked out and the design of the lower moldings nicely conforms to this modified shape. Many of the surfaces are decorated with applied gesso designs that provide this model with a three dimensional presentation. These designs include pendants, leaves, shells ,etc. The front of the case is fitted with two doors. The lower door frames a glass panel through which one can view the brass faced pendulum bob. This door opens to allow one access to the pendulum in order to rate the clock. The upper door is in the form of a brass bezel or ring. This is also fitted with glass. The dial is original to this clock and is in excellent condition. It is somewhat unusual to find an Atkins clock with its original painted dial. Most examples have been repainted due to the poor preparation of the tin when first painted. This tin dial features a traditional Roman numeral time ring. Original steel hands indicate the time.
Inside this case one will find a very unusual movement that was originally designed by Joseph Ives. (These wagon spring movements were categorized by Fred Selchow in an April 1953 NAWCCbulletin. This is referred to as a "Type 3.") Unfortunately, this is difficult to view due to the design of the case. This movement is powered by 8 leaf or flat springs. These are held or supported by a large and decorative cast iron bracket. This bracket was necessary to prevent the case from breaking apart under the pressure of a fully wound movement. This must have been a major contributing factor to the cost of producing this clock.
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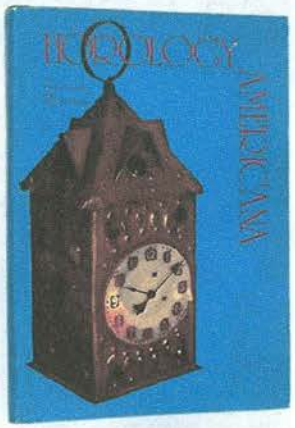
One can also assume that this movement was much more expensive to build as compared to a more common Connecticut format. The movement is a combination of brass gearing and steel pinions. The plates have been skeletonized. When fully wound, this clock is designed to run 30 days.
This clock measures approximately 18.5 inches tall, 6 inches deep and 12.25 inches wide. This clock was made circa 1856.

This very clock is one pictured on page 165 in Lester Dworetsky and Robert Dickstein's "Horology Americana." A similar example is on display at the American Clock and Watch Museum in Bristol, Connecticut.

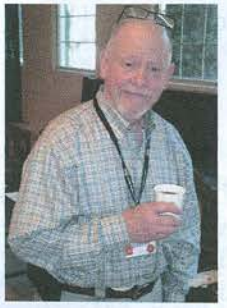
Horology Americana Hardcover – 1972



by Lester Dworetsky (Author), Robert Dickstein (Author)

Lester Dworetsky presents over 200 antique American clocks from the earliest colonial days through the 1800's--many of them never before seen in any other publication. 212 pages; 204 color and 96 b&w photos; 7.25 x 10.25 inches.

April 2018



John Harrison Inventions That Changed the World

On April 3, 2018 Google celebrated the life of British horologist John Harrison, a man whose inventions helped shape clock making and navigation for years to come. While most famous for his creation of a device to measure longitude at sea, some of his greatest breakthroughs came from the journey to develop this machine. Harrison spent decades trying to answer the call from the Board of Longitude, established in 1714, that offered £20,000 (around $5,000,000 today) to anyone who could find a way to measure longitude on boats. This was critical for avoiding ocean rocks: While understanding latitude is as simple as looking up at the sky, longitude was much tougher. Almost 2,000 sailors lost their lives in the Scilly naval disaster of 1707, spurring the creation of the board. In his quest to win the prize, Harrison made some fascinating creations along the way.

Here are five of Harrison's best-known inventions, including the one for which he's now famous.

Marine Chronometer

This clock, known as H1, was built between 1730 and 1735 and is described by the Royal Museums Greenwich as "the first relatively successful marine timekeeper of any kind." The clock enabled ships to depend on time as a measure of longitude, as they could compare a fixed time to the stars and use it to work out how far from their starting point they had moved.

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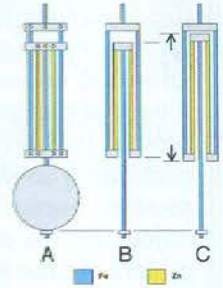
Gridiron Pendulum

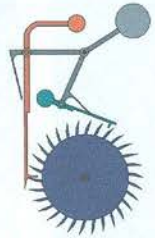
This pendulum was key to helping ships maintain constant time. It was invented in 1726 and used alternating brass and iron rods that would counteract each other as temperatures changed. The design depends on two different metals that change temperature at varying rates. In the diagram below, B shows an iron rod in blue paired with yellow zinc rods at regular temperature, while C shows them at higher temperatures.



Gridiron pendulum
The gridiron keeps the pendulum swinging at the same length, maintaining accurate time.

Spring Remontoire

For his second clock called H2, built between 1737 and 1739, Harrison used a spring remontoire to ensure accuracy by evening out quirks in the gear train's movements. Harrison didn't invent the remontoire, but he was credited with its perfection. In a 1935 lecture describing its use in H3, commander Rupert Goulddescribed it as "the only mechanically perfect remontoire I have ever met with."



Grasshopper Escapement

This mechanism, invented by Harrison in 1722, was critical to his first three watches. The mechanism consists of two pallets operated by a pendulum. As it swings, it moves the pallet a fixed amount, almost jumping with each push. The movement helps regulate the speed at which the clock hands move, and its accuracy was pivotal to Harrison claiming his prize.

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19th Century Death Clock

What is a death clock and how did it get its name and reputation? Simply put, a death clock is an Ormolu decorated clock. How did this type of clock decoration receive the distinction of the title of "Death Clock"? The source of the distinction lies in the process itself. Ormolu is an 18th-century English term for applying finely ground, high-carat gold in a mercury amalgam to an object of bronze. The mercury is driven off in a kiln (leaving behind a gold-colored veneer). The French refer to this technique as *bronze doré*; in English, it is known as guilt bronze. The manufacture of true ormolu employs a process known as mercury-gilding or fire-gilding, in which a solution of nitrate of mercury is applied to a piece of copper, brass, or bronze, followed by the application of an amalgam of gold and mercury. The item was then exposed to extreme heat until the mercury burned off and the gold remained, adhered to the metal object. Due to exposure to the harmful mercury fumes, most gilders did not survive beyond 40 years of age. No true ormolu was produced in France after around 1830 because legislation had outlawed the use of mercury.

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John Harrison Inventions That Changed the World

The Jeffreys Watch

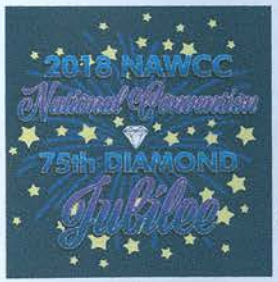
Also known as H4, Harrison started work on this watch after a watchmaker called John Jefferys produced a pocket watch to his specifications in 1753. Improving the pocket watch was a side project, but the Jefferys watch made him realize it could improve the longitudinal device. Harrison started work in 1755 and finished four years later. The result was a culmination of a lifetime's work, a portable device that finally solved the question of longitude.

More about the Jeffreys Watch on page 13

The Jeffreys Watch

Marine timekeeper, H4. This is Harrison's prize-winning longitude watch, completed in 1759. Harrison had been working on improving watches as a sideline to his development of the much larger H3. In 1753 a pocket watch was made to Harrison's design by watchmaker John Jefferys. This went so well that Harrison began to realise that it pointed to the longitude solution - not in H3 but in smaller watches. Work began on H4 in 1755 and, with its very stable, high frequency balance, it proved the successful design.

Read more at http://collections.rmg.co.uk/collections/objects/79142.html#6tW0oUzvkCCWYiZh.99



COME CELEBRATE WITH US!

2018 NAWCC NATIONAL CONVENTION - JULY 19-22, 2018

Are you interested in a NAWCC Watch & Clock Traveling Workshop? Call Pete Cronos, 870-974-2583 for info regarding the workshops given at the 2018 NAWCC National Convention in Columbia, PA.

CHAPTER #107 MEETINGS

Second Sunday of the Even Numbered Months

Mart: 10:30AM
Chapter: 12:00PM
Board: after the Chapter Meeting

Future Meeting Dates

August 12, 2018
October 14, 2018
December 09, 2018
February 10, 2019

We want to keep our members coming to the chapter meetings on a regular basis. If you have problems with transportation to and from meetings, let a director or officer know so we can help you find a carpool.

Only NAWCC members can participate (buy or sell) in our Mart. Be prepared to show your current 2017membership card.

Other NAWCC Chapter Meetings in Northern California		
Chapter	**Meeting Address**	**Meetings**
De Anza #94	Odd Fellows Lodge 20589 Homestead Rd Cupertino, CA	2nd Sunday even months (except April)
Monterey Bay #70	Community Foundation 7807 Soquel Drive Santa Cruz, CA	3rd Sunday odd months
Sacramento #71	Sacramento Garden Center 3330 McKinley Blvd. Sacramento, CA	4th Sunday odd months
San Francisco #5	Boys and Girls Club 401 Marina Blvd. San Leandro, CA	2nd Sunday odd months

DIRECTIONS TO CHAPTER MEETINGS

(except August and December)

743 Diablo Road, Danville

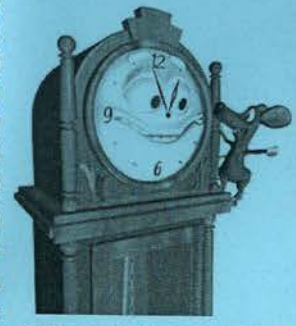
Take Interstate 680 to the Diablo Road exit in Danville. Go east on Diablo Road for 0.6 mile. The Grange Hall will be on your right. Parking is available in the front and rear. Enter from the front; *i.e.*, street side. Facing the building from the street, there is a ramp on the right side for handicap and cart access.

CHAPTER LIBRARIES

BOOK: The Chapter book library is located at Classical Clocks and Antiques, 1082 E. Stanley Blvd., Livermore. Contact Nile Godfrey (925-449-2127) for more information.

VIDEO: Chapters 107 and 5 share a DVD video library. Contact Price Russ (925-937-9231) for information.

TOOL: Contact Walt Hubrig (925-685-0260) or Price Russ (925-937-9231) for information on the tools and parts available for use by Chapter members.



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