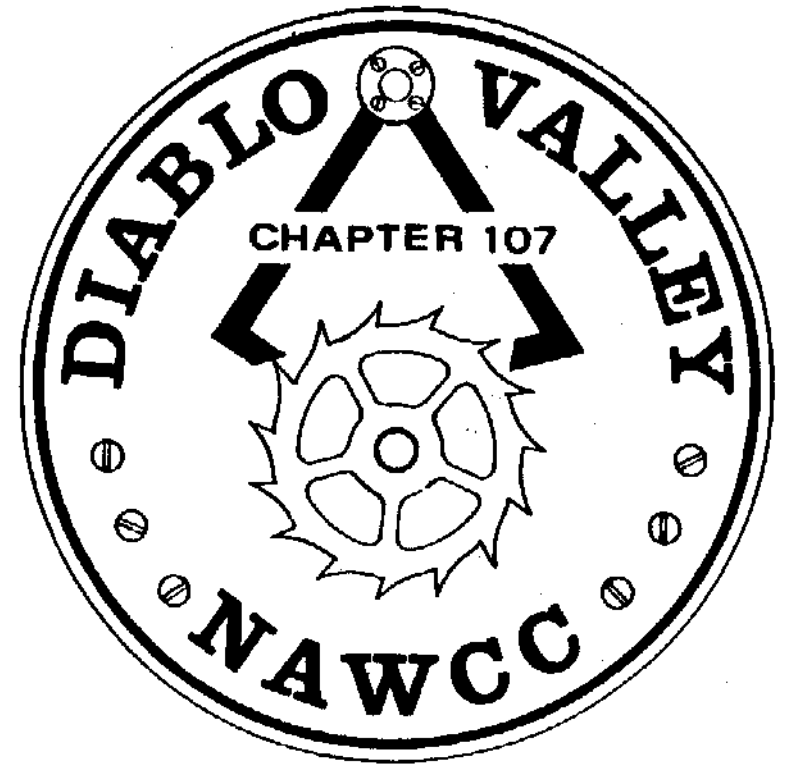


BULLETIN



April 2004
Volume 152

DIABLO VALLEY

Chapter 107

National Association of Watch and Clock Collectors

Chapter Established March 5, 1978

"Accent on Education"

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Meeting Notices

APRIL 18th

NOTE: THIS IS THE THIRD SUNDAY OF
APRIL

Mart 11:30

(Both a buyer and a seller be.)

Meeting 12:30

Room B-8

Acalanes Adult Center

**Fifty Years of Collecting:
Five Interesting Clocks**

by

Dorian Clair

(Bring a favorite clock to display.)

President's Message

Our February 8th meeting was well attended by 24 enthusiastic watch and clock collectors spurred on by coffee, juice and donuts. The group happily welcomed our new member Steve Slusher.

Numerous unique AND exiting clocks were displayed by our members. Each proud owner gave a background, interesting peculiarities, history and manufacturer. John Stohr presented 2 J. C. Benson clocks, one being a fusee. Dale Gardner presented his Salem bridge clock and told us why they are called Salem Bridge; see the February Bulletin for additional information on Salem Bridge clocks. Celeste Graham presented both her picture frame clock and her Ansonia Navy clock that she found on a trip through Pennsylvania. Sandra Cuthill presented her carriage clock with original carrying case.

Bob Wahrer's Sizing Clock Mainsprings lecture brought open discussion, questions and experiences of finding clocks with incorrect springs causing poor performance. Bob told us how to check for the correct spring. The demand for Bob's calculation data sheets outstripped the supply. Price will place the information in an upcoming Bulletin for all of us to use.

Bob Wahrer received applause in appreciation for his service as 2003 Chapter #107 President. The 2004 Officers, Directors and Committee Chairs were also welcomed and are listed in the Bulletin.

The Proposed 2004 Budget in the February 2004 Bulletin was approved by the attended membership. Special thanks to Sophia who has supplied all of the photo development.

Roy Holman stated that all attendees have paid their 2004 dues. As a reminder, make sure you get your dues to Roy to participate and to continue to receive the Bulletin. Last year we had 49 members with several new members. We had a brief discussion on ideas and suggestions on how to get our

club information available for interested people to contact us. All of your ideas are welcome. New people, guests and members bring new ideas, variety and interests to our chapter. Bring a guest.

Jason Evans

Editor's Section

In the course of editing the *Bulletin*, I have learned many interesting facts and connections among seemingly isolated bits of information. Sometimes I also uncover misleading or false statements that I have made in previous issues. For example in the Closing Thoughts box of the June 2003 issue, I attributed "Time is the wisest of all counselors" to a fortune cookie. This is where I read it, but it seems that the fortune cookie writer got it from Plutarch (AD 46-120). According to Bartlett's Quotation, he wrote "Be ruled by time, the wisest counselor of all." Actually lots of interesting quotations, including "moderation is best, and to avoid all extremes", are attributed to Plutarch. It is sad that we no longer read the classics.

This month's Closing Thought is from Wilhelm von Humboldt, a Prussian diplomat, statesman, educator, and philosopher. His brother Alexander was a famous naturalist. Humboldt State University, the Humboldt Current off the west coast of South America, a foundation granting prestigious fellowships, and many other things are named after Alexander.

I am sure you are all enjoying Bob Wahrer's articles on clocks in the Forbidden City. We need more member contributions. Please consider submitting articles on any horological topic. If the topic interests you, it will interest others. If you are bashful, just suggest topics that you would like to see discussed.

Price Russ

TIME IN THE FORBIDDEN CITY (2)

During my visit to the Clock Museum at the Forbidden City, I attempted to take some photographs of the exhibits. Unfortunately, the pictures turned out badly due to the poor lighting and reflections from the glass enclosures. As we were leaving China, I purchased a book at the airport *Clocks and Watches of the Qing Dynasty*. I was very pleased to discover that this book has excellent photographs of about 200 clocks from the Forbidden City collection. The pictures shown in the bulletin were scanned from this book since they are much better than anything that I took.

The clock presented here is an example of how clock manufacturing progressed in China during the middle 18th century. This is referred to as a "Tower Clock". It is over 6 feet tall and is actually a large clock on a table. This clock was designed in Europe (no specific country is noted) The plans were received by the Clock Workshop at the Forbidden City in 1743. This clock was completed about 6 years later in 1749. During this period, The Clock Workshop employed foreigners to teach the skills of clock making to the Chinese. European merchants brought several hundred clocks into China each year during these times. Many of these clocks were disassembled, studied and then duplicated. It has been reported that even the Emperor Kangxi enjoyed taking clocks apart to learn how they worked. (No report on whether the Emperor ever put them back together again.)



The action of the Tower Clock is powered by 7, yes seven,

mainsprings. Five springs are required for time and striking. These are wound through the 5 winding holes in the dial. Two additional springs in the base power the dancing figures and backdrops. Each quarter hour, doors on the upper level open and three figures strike bells with hammers to indicate the hour and quarters. Music then plays and an assortment of mythical figures perform their dances in the two stages at the sides of the dial.

Bob Wahner

WATCHES FOR MARS

Timekeeping on Mars was the subject of a question in the February issue. The answer to that question can be found on page 10. Earth-bound controllers for equipment operating on the Martian surface, have to adjust their work day to correspond to the hours of daylight on Mars. To help themselves cope with this problem, the Mars Exploration Rover (MER) mission commissioned special watches set to operate 39.5 seconds per day slow compared to earth rates. This is no great feat technically, but one can bet on these watches becoming highly collectable. At the moment there are two rovers operating on different parts of Mars, so the two teams of operators have their watches set to different "local times". In case you are wondering why the face looks rusty, it contains a picture of the Martian surface. *Astrobiology Magazine* has an article on the subject of living on Mars time, see <http://www.astrobio.net/news/modules.php?op=modload&name=News&file=article&sid=721>. (Photo from *Caltech News*.)



Price Russ

February 2004 Meeting

Photos mostly by Dale Gardner

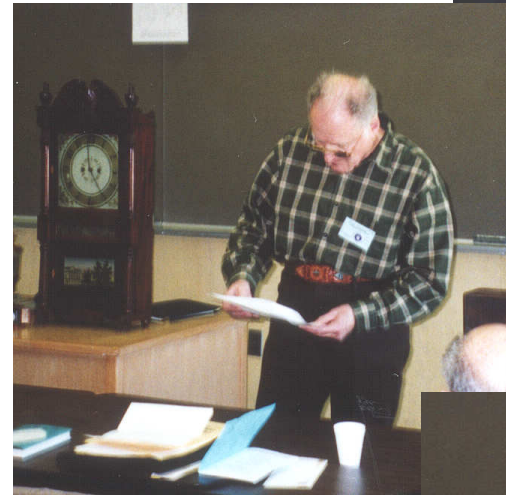


Dorian Clair describing candle-lit clock.



Dale Gardner with his Salem Bridge clock.

Gordon Richards and Price Russ getting acquainted.



Bob Wahrer consults his notes on springs.



Sandy Cuthill discussing an old travel alarm.

Celeste Graham showing two favorites.



Wait. Don't Tell Me!

Answers to last issue's questions

The musical score in the last issue is the Cambridge Quarters, commonly called the Westminster Chime. It was first used in 1793 in connection with a clock in St. Mary's Church in Cambridge, England. It is said that they were devised by a Dr. Crotch from the fifth bar of Handel's Aria "I know that my Redeemer liveth" from *Messiah*. The documentation for this claim is tenuous, but Lord Grimthorpe, who used the tune at Westminster, says he heard the claim from a "Cambridge man of the last century". Several prayers are associated with the tune. Two examples: "*Lord through this hour, be Thou our guide so, by Thy power no foot shall slide*" or "*Lord through this hour, Be Thou my guide, For in Thy power, I do confide*". The pin barrel goes around twice per hour. The first rotation plays the first and second quarters and 2/3s of the third quarter. The second rotation completes the third quarter and plays the hour. (I have no idea how the prayer(s) became associated with the tune. If someone knows the answer to this question, please let me know. - ed.)

The clock pictured was patented in 1864 (#41,122) by Don J. Mozart, Levi Beach and Laporte Hubbell. It features a perpetual calendar (one that corrects for leap year), a lever escapement, two mainsprings, and runs for a full year on one winding. This information comes from *Survey of American Clocks: Calendar Clocks* and from the patent itself. Patents can be viewed on the internet at <http://www.uspto.gov/patft/index.html>.

The Martian day or "sol" is defined to be 24 hours long, but the seconds are longer than terran (earth) seconds. In terran terms, the Martian day is about 39.5 minutes longer than our days. (See page 7 for more on this subject.)

New Questions

When is the next time Easter will fall on the second Sunday of April? What are the earliest and latest days on which Easter can fall?

The famous English horologist pictured is credited with inventing the cylinder escapement. Who is he? What famous horologist was his business partner and successor and is buried with him? Where are they buried?



Enough old guys in funny wigs? Who is this lady and what is her link to horology? Hint: she was involved in the history of the building shown on the next page.

ORIGIN OF THE ROYAL OBSERVATORY



The Royal Observatory at Greenwich was founded in 1675 to collect data needed to determine whether “the longitude” could be determined by the method of lunar distances. Specifically the goal was to determine whether the method was practical. Johann Werner first proposed the method in 1514. Jean-Baptiste Morin a professor of medicine and mathematics at the College Royal in Paris improved the calculations and presented them to Cardinal Richelieu in 1634. The method was considered lacking because of poor date. Morin suggested setting up an observatory to refine the measurements but the idea went nowhere until the founding of the observatory at Greenwich. See David Howse’s article in *The Quest for Longitude* for more on this story. (The picture by an unknown artist from about 1680 shows the construction of the observatory.)

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 ☆ **TIME TO RENEW MEMBERSHIPS** ☆
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 ☆ Chapter dues for 2004 remain unchanged (since 1981) at ☆
 ☆ \$15.00. This includes your spouse. You may pay at the ☆
 ☆ next meeting or mail a check to Roy Holman at 4300 ☆
 ☆ Everett Ave., Oakland, CA 94602. Please make checks ☆
 ☆ payable to Diablo Valley Chapter 107. Badges can be ☆
 ☆ picked up at any meeting after your payment is received. ☆
 ☆ **Those not renewing by the April meeting will be** ☆
 ☆ **dropped from the roster and mailing list.** ☆
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THE EASTER CALENDAR

Easter is the first Sunday after the Paschal Full Moon. Because the Paschal Full Moon is based on a table rather than observations, calculating the date of Easter is rather complicated. It is because of the use of these tables and the differences between the Julian and Gregorian calendars that Easter can fall on different days in Orthodox and Western churches. For more information and references on this subject, visit - <http://www.smart.net/~mmontes/ec-cal.html> .

TOOL LIBRARY

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. These are available at no cost.

NOTICES FROM 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: requests for this section.

CHAPTER #107 MEETINGS

Days and Times

Mart	Second Sunday	11:30AM	Even numbered months
Chapter	Second Sunday	12:30PM	Even numbered months
Board	Second Sunday	after the Chapter Meeting	
Evening	First Friday	7:30PM	Odd numbered months

Future Meeting Dates

FRIDAY

May 7, 2004
 July - None
 September - None
 November 5, 2004
 January 7, 2005
 March 4, 2005

SUNDAY & BOARD

June 13, 2004
 August 8, 2004
 October 10, 2004
 December 12, 2004
 February 13, 2005
 April 10, 2005

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.

Other NAWCC Chapter Meetings in Northern California		
Chapter	Meeting Address	Meetings
De Anza #94	Odd Fellows Lodge 20589 Homestead Rd Cupertino, CA	2 nd Sunday even months (except April)
Monterey Bay #70	Live Oak Grange Hall 1900 17th Ave Santa Cruz, CA	3 rd Sunday odd months
Sacramento #71	Sacramento Garden Center 3330 McKinley Blvd. Sacramento, CA	4 th Sunday odd months
San Francisco #5	401 Marina Blvd. San Leandro, CA	2 nd Sunday odd months (1 st Sunday May)

DIRECTIONS TO CHAPTER MEETINGS

Sunday Meetings

(except August and December)

From Oakland - Highway 24 going East

Take Pleasant Hill Road South exit.
 At light, turn right onto Pleasant Hill Rd.
 At end, turn left on Olympic Blvd. Go 0.9 miles.
 At light, turn right onto Tice Valley Blvd. Go 0.6 miles.
 Turn right into Acalanes Adult Center (1963 Tice Valley Blvd.).

From San Ramon - Highway 680 going North

Take Olympic Blvd. exit.
 Left on Olympic Blvd. Go 0.9 mile.
 At light, turn left onto Tice Valley Blvd. Go 0.6 miles.
 Turn right into Acalanes Adult Center (1963 Tice Valley Blvd.).

From Benicia - Highway 680 going South

Take Olympic Blvd. exit.
 Right on Olympic Blvd. Go 0.8 mile.
 At light, turn left onto Tice Valley Blvd. Go 0.6 miles.
 Turn right into Acalanes Adult Center (1963 Tice Valley Blvd.).

Friday Technical Meetings

Details on the May meeting will be announced later.

Due to our tax exempt status, only NAWCC members can participate (buy or sell) in our Mart - be prepared to show a current NAWCC membership card.

Closing Thought

**Time is but an empty room, to which only events,
 thoughts, and feelings give content.**

Wilhelm von Humboldt (1767-1835)