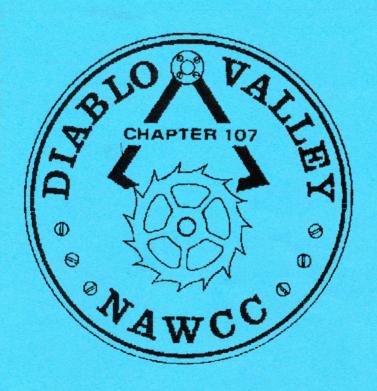
BULLETIN



April 2014 Volume 212

3

DIABLO VALLEY

Chapter 107

National Association of Watch and Clock Collectors www.community.nawcc.org/chapter107 email account chapter107nawcc@gmail.com

Chapter Established March 5, 1978

"Accent on Education"

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One important change

Mart hours will be from 10:30 with the formal meeting and program starting at noon.

Meeting Notice

April 13, 2014

Note new Mart and Meeting times

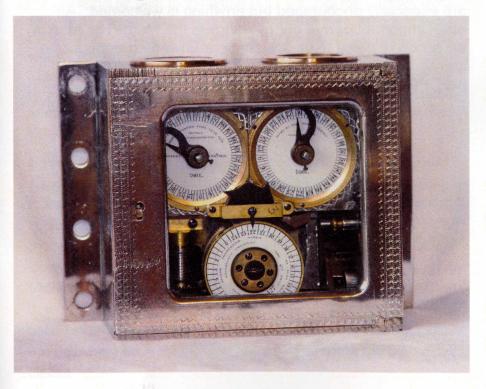
Grange Hall has a Sunday morning meeting scheduled every week. We need to adjust our meeting time.

Mart set up will open at 10:30 please do not come earlier the Meeting will start at 12:00.

This should be the time for all future meetings. It's important that we do not interfere with the group that is meeting before us.

Grange Hall 743 Diablo Road Danville

This months speaker is Bob Simon Topic Bank Safe Time Locks



Tresident's Message

Thank you to all our members who have paid their annual chapter dues. If you have not yet renewed your membership please do. Members receive a number of benefits by belonging to the chapter:

The Bulletin

Ability to buy and sell at our Mart for NAWCC members or chapter members

Attendance for 2 at our annual picnic and white elephant auction

Reduced price for 2 at holiday luncheon and auction in December

Special home tours of Horological collections.

Please remember you must be a current member of the NAWCC to be a chapter member. We welcome guest to our meetings but you must be a member to take advantage of the above benefits.

I would like to encourage all members to bring items for display during our meetings. Items that relate to the program are especially encouraged but anything is welcomed. Another important part of our meetings is the Mart. The Mart is an excellent place to dispose of your unwanted or duplicate items. Your unwanted items are another member's treasure. Please bring them to our next meeting.

John

Editor's Note's

This is one Mart and meeting you do not want to miss. Our guest speaker Bob Simons will be talking about Bank Safe Time Clocks. With that in mind look on page 6 & 7 for information on **Eaton Two Movement Time Lock** that I found on the internet.

There has been some clocks donated to the Chapter that will be auctioned off. To find out more about a special auction that will be during the Mart check out page 10 and 11

Thanks again to Price for the two articles Mare Island Station and Another Look at Determining Longitude.

Mare Island Station

The determination and distribution of time by the Naval Observatory in Washington and Western Union was limited to the East and South, particularly to the ports where chronometers could be checked. It was recognized that a similar service and the ability

to rate navy chronometers was needed on the west coast. Accordingly Mare Island Station was opened in 1884. In 1889, the station was equipped with a 5 inch telescope (refractor) on the right, a 2.5 inch transit circle in the middle section, three Howard clocks, and on the right dedi-

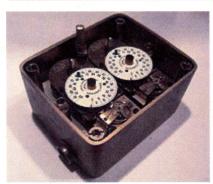


cated space to test chronometers. The clocks were described as similar and mounted on separate masonry piers. They had mercury compensated pendulums and gravity escapements. One was set up for sidereal time, one for mean-time, and the third as a transmitter. The man in the photo is T. J. J. See the director from 1903 to 1939. See was a very controversial figure, who was basically exiled to Mare Island. As was the case with the main observatory in Washington, Western Union distributed time from Mare Island to various cities. Radio broadcasts of time signals from the observatory began in 1913. In the 1920s, Mare Island Station had two Howard transmitting clocks and two Rieffler standard clocks.

Having different time standards on opposite sides of the country was less than ideal. From 1930 to 1934, Washington signals were rebroadcast from Mare Island. This was adequate for navigational usage but not for scientific purposes. A crystal-controlled electric transmitting clock replaced the Howards in 1934. The Riefflers were initially retained for reference use. According to the Vallejo Naval and Historical Museum, the observatory was torn down in the 1930's. Based on See's retirement, this must have occurred around 1939. The original time ball is in the museum, but I have not been able to find out anything about the fate of the clocks.

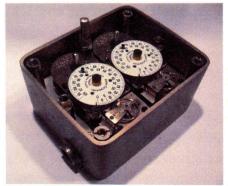
Eaton Two Movement Time Lock

Written by AnubisTTP on 2011-12-30



A time lock is a special type of clock designed to be mounted inside of a bank vault or high-security safe. Time locks are designed to prevent robberies by sealing a bank vault until a designated amount of time passes, which prevents a potential robber from kidnapping the bank manager after hours and forcing

him or her to open the vault door. This time lock mechanism, manufactured by Eaton, is a typical example of the style of time lock used during the Cold War. The lock contains two complete and separate spring-driven clock movements for redundancy, either movement can trigger the lock's release mechanism. Each movement has a dial with a small pin attached that indicates the amount of time remaining before the vault can be opened; the pins engage levers along the bottom of the movement that free the bolt on the vault door when the dials are at the zero position. Note that in the thumbnail the cover and bolt-work for the lock have been removed to allow the movements to be seen. The dials are set and the movements wound with a key that inserted through a pair of small holes on the face of the lock.



with cover removed.

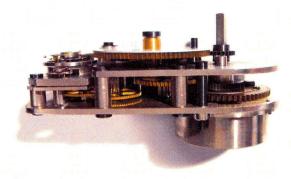
Eaton two-movement time lock

Continued from page 6

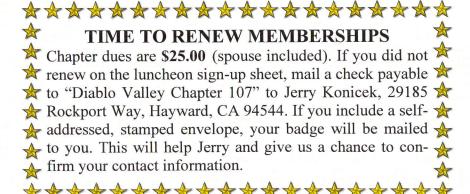
Eaton two-movement time lock with cover removed.



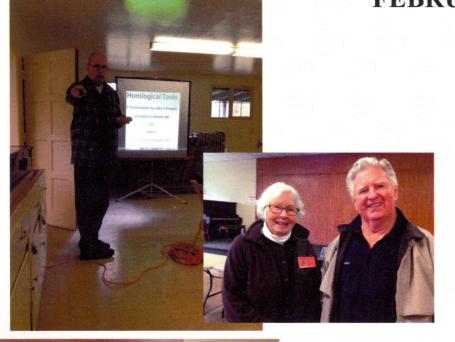
Eaton time lock with front cover installed. Note the magnifier lenses positioned above each movement dial.



Eaton time lock movement, side view. Each movement can run for up to 120 hours.



FEBRUARY 2014 Meeting









Gledhill Brook Electric Recorder To be auctioned At our April 13, 2014 meeting

Our chapter has received generous donation of a Gledhill Brook Electric Recorder Clock. This is slave unit designed to operate on a 3 volt pulse every 30 seconds. Proceeds of the sale all go to Diablo Valley





Chapter 107. The bidding will start at \$100 and proceed in increments of \$10.

More to be auctioned At our April 13, 2014 meeting



Wanted: Tran Du Ly clock books. These aren't being sought to resell, but to complete my collection. Please e mail or call if you would like to sell a copy of the following books: American Clocks vol. 3, Seth Thomas Vol. 2, Waterbury Vol. 1 and/or 2, the original Waterbury, Sessions, Welch, Calendar Clocks, Long Case Clocks, and French Clocks and Bronzes. Contact Info---Jerry Konicek, 510-783-6451 or jakonicek@pacbell.net. Many thanks in advance.

Disclaimer

Statements of opinion and/or fact made by authors of papers or articles read before or appearing in the publications of the Chapter are to be accepted as the author's own. The

Chapter assumes no responsibility for the accuracy or correctness of any statement of its contributors. This statement of responsibility shall appear in each issue of the Bulletin

containing any of the foregoing.

Have you visited our website community

nawcc.org/chapter107?

It now contains meeting notices, past programs,

**Bulletins* (2009-current), the Library Catalog, and

**other items.

Another Look at Determining Longitude

The triumph of the chronometer over the method of lunar distances and other astronomical measurements for determining longitude is well know, but do you know who first described how a clock could be used to determine longitude or when?

Interestingly, the both the lunar distance and chronometer methods were proposed within 20 years of each other and both became practical with the same decade - after two centuries of sustained development.

The lunar distance method was proposed by Johann Werner in 1514 while the chronometer method was proposed by Gemma Frisius, an instrument maker and member of the medical faculty in Leuven (Netherlands), in 1530. The lunar distance method was brought to useful form by Neville Maskelyne at the Royal Observatory while the chronometer was developed, as we all know, by John Harrison - both in the 1760s. It is not surprising that there was great competition between the two developers given that both had devoted their lives to these efforts.

It is well known that after a long struggle, Harrison was awarded the Longitude Prize, and that the chronometer method ultimately replaced the lunar distance method. It is less widely recognized that the rivalry between the methods lasted more than a generation, at least partially because of the scarcity and cost of chronometers. It was not until the early 19th century that the chronometer method became recognized as easier and potentially more accurate. Even in England, all Royal Navy ships were not issued chronometers until about 1825. Lewis and Clark used both methods on their expedition. The supply of chronometers did not catch up with world-wide demand until about 1840.

William Bond was the first American to construct a chronometer and first to test imported chronometers. That is another story.

CHAPTER #107 MEETINGS

Second Sunday of the Even Numbered Months

Mart: 10:30AM Chapter: 12:00PM

Board: after the Chapter Meeting

Future Meeting Dates

June 08, 2014

August 10, 2014 October 12, 2014 December 14, 2014 February 08, 2015

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 membership card.

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	Boys and Girls Club 401 Marina Blvd. San Leandro, CA	2 nd 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.

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.