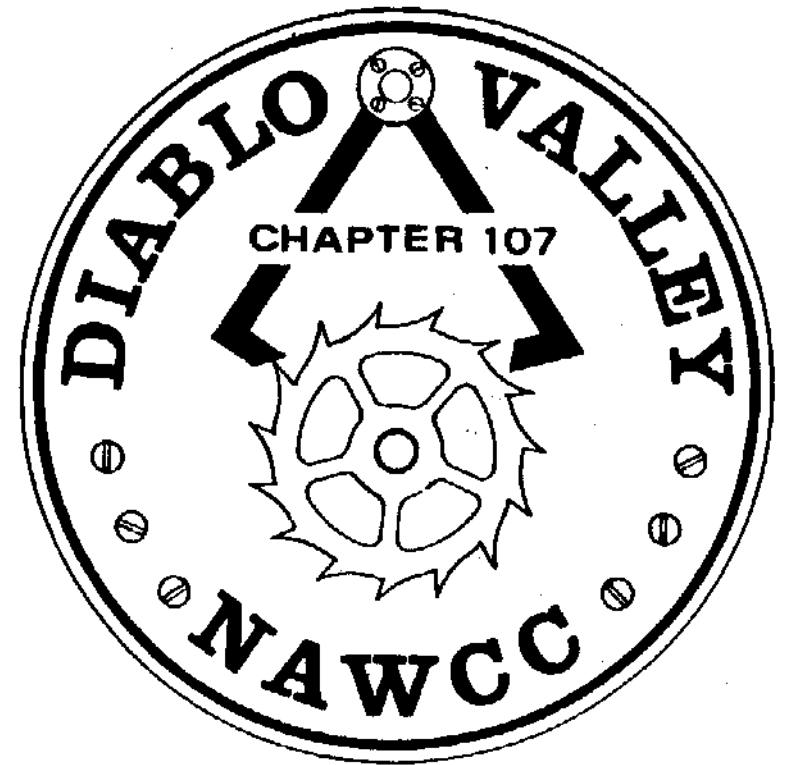


BULLETIN



October 2010
Volume 191

DIABLO VALLEY

Chapter 107

National Association of Watch and Clock Collectors

Chapter Established March 5, 1978

"Accent on Education"

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Raffle	Jack Coulter	925-284-1031	
Refreshment	****open****		
Tool Library	Walt Hubrig	925-685-0260	dottiewalt@astound.net

Meeting Notice

October 10, 2010

Mart 10:30 Meeting 12:00

Grange Hall
743 Diablo Road
Danville

**Swiss Family Taylor:
Alameda to Villeret and Back**
by
Jay Taylor

CORRECTION

In the August issue, the generous donation of material to the auction should have been credited to Lee Taylor. Thanks Lee.

President's Message

Greetings Chapter 107 members and families! Our 2010 Picnic was successful on many fronts, even the doggie bags, as we certainly had a tad too much chicken. We planned on people eating a bit more, and also thought attendance would be a bit higher, but, all in all, I believe most everyone enjoyed themselves, & those that missed it truly missed out on a good time and some wonderful food. The hits of the day had to be Tina Thomas' Beans - followed closed behind by the beautifully displayed Fruit Salad created by Bernice Russ.

The Silent Auction sure had loads of items this year! I would like to thank Lee Taylor who contributed over half of them. Also many thanks to all the members that were kind enough to dig through their 'special' and miscellaneous horological items for the benefit of the Chapter and each one of us. At the October 10th Chapter meeting we'll be discussing what the membership thought of having the Picnic at the Lodge meeting Hall, & the pro's and con's to help us decide for next year. Please plan on staying for the meeting after the Mart, as we have several subjects to discuss this month - see the list on page 5.

If you have a computer, please take a few minutes to cruise around the National's NAWCC website www.nawcc.org & take note of all the recent changes. There has been a tremendous amount of effort (and our national dues) put forth for our benefit. There is access to many historical records which we used to have to write away for, & loads of information to keep any of us busy for hours. It's really worth a visit. See you soon.

Chip



Editor's Page

I want to thank Earl Watrous and Bob Wahrer for the articles they contributed to this issue. Their frequent contributions are greatly appreciated. That does not mean there is no room for contributions from others. (Consider that a subtle hint.)

One of our members recently gave me an Irish Black-Forest-style clock. Trying to establish its origin lead into an interesting research project. Among other things, an internet search lead me in a round about way to the great granddaughter of the maker with whom I have exchanged several interesting email messages. The clock itself also provided some interesting repair/restoration challenges. I hope to present the story of this clock at a Chapter meeting - perhaps February. I think "CSI: Walnut Creek" would be a good title. In case you are wondering, there is no crime involved. CSI stands for Clock Story Investigation.

The pictures on pages 4 and 7 are from recent auction catalogs. They have no particular relevance to anything else in this issue; *i. e.*, they are nice filler.

Price

IMPORTANT BUSINESS

There are several pressing items that need to be discussed.

December Lunch: Do we want to return to the Back 40? If not where should we hold the meeting. Walt Hubrig has indicated that he is able to help with the arrangements once preferences are known.

Officers, Board Members, and Committee assignments for 2011: Now that we don't have John Stohr working behind the scene, we need not only officers but active committee chairs.

Meeting hours: How long should the mart run and when should it and the meeting start?

August Picnic and Auction: While it is fresh in our minds, the good and bad of holding the August meeting at the Grange Hall should be discussed.

EXTENSION OF THE BATTERY LIFE IN A QUARTZ WATCH

Bob Wahrer

The battery life in quartz watches that are manufactured today is significantly longer when compared to those manufactured 15 or more years ago. In the older watches, the integrated circuit (IC) would supply a pulse of a fixed magnitude to the stepping motor every second. In the newer watches, the IC adjusts the power so that it is always sufficient to keep the watch operating properly without wasting energy by over powering the stepping motor.

The friction in a watch or clock will vary over time due to a number of reasons. For example, eccentricity of a wheel or pivot, will cause short term variations, while wear and dirt will increase friction over a longer period. In addition, shock and vibration may cause the watch to miss a 1 second step. Therefore, to keep the watch running dependably, additional power must be provided to overcome the increases in friction that are likely to occur.

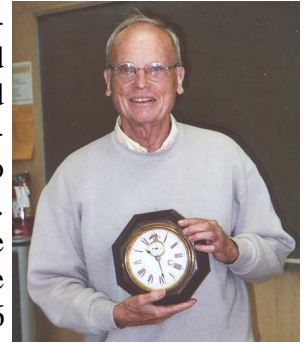
Early quartz watches were designed to provide a pulse to the stepping motor every second of sufficient magnitude to overcome the worst case friction conditions to be expected. This extra power had to be provided by the battery even during the times when a much smaller power could keep the watch running. The ICs in currently manufactured quartz watches, operate differently. The ICs in these watches employ various schemes to monitor the stepping of the motor and adjust the power to the motor to the lowest level required to maintain proper operation. Instead of supplying one large pulse to the stepping motor every second, An "interrupted" pulse is generated. This is a series of shorter pulses separated by off intervals. In one scheme, the IC monitors a signal from the motor during the short off time between pulses to verify whether the motor has stepped. Once it has sensed that the motor has stepped, the remaining pulses are shut off thereby saving power. As an example, a watch may require the energy of 4 small pulses most of the time but require 7 or 8 pulses on the occasion when friction conditions worsen.

Continued on page 15

IN MEMORIAM

With sadness, we report the deaths of two long-term members of Chapter 107.

Tom Armour, a retired teacher, musician, and patron of the fine arts, served the Chapter as President, Secretary, and Board member. In 1999 he was responsible for getting Chapter members to restore several tall-case clocks at Fioli. A fellow member aptly described the multifaceted Tom as a Renaissance man. This picture is from the June 2006 Bulletin.



While perhaps technically not a Chapter member, Lorraine Stohr, John's wife, was active in many Chapter events including hosting Friday Night and Board meetings. Lorraine is shown here with John at the December 2006 meeting.



Our deepest sympathies go to their families.





Price Russ



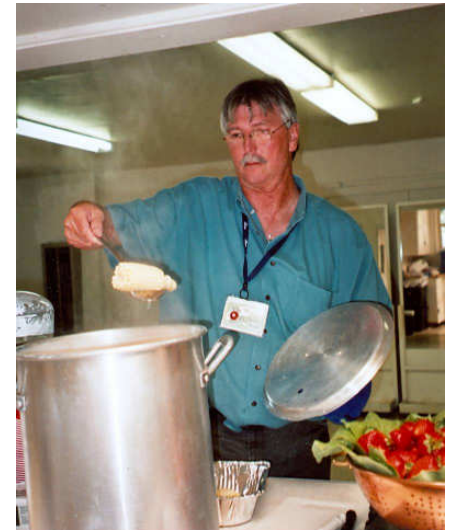
Cherryl Thomas & MaryWatrous

August 2010 Meeting

Photos by Sophia Gardner



Leonard Boone & Bob Wahrer



Chip Kumparak



Jack Shallow, Dean Thomas, & Dale Gardner



Bob Thomas



Mary Roque

ARE YOUR PIVOTS POLISHED? Earl Watrous

Under 40X magnification, you may find that your polished pivots are not as smooth as you wanted. I have tried burnishing tools, as well as graded stones, both unsuccessfully. Under 40X magnification, my pivots polished with stones and burnishers appear rough. I tried resurfacing the stones and burnishers as instructed in a video by Archie Perkins, without any significant improvement. The following method works for me, producing a consistent, smooth finish.

TOOLS: Make simple pivot polishing tools out of popsicle sticks and sand paper. Glue popsicle sticks to the back side of sand paper of varying grit (220, 320, 400, 600, 800, 1200, 1500, 2000, and 2500). While the glue is drying, mark the naked side of the popsicle sticks with the grit number for identification. Cut the sand paper around the popsicle sticks (popsicle sticks can be cupped or warped - use the flat ones). One last pivot polishing tool to make is a popsicle stick covered with leather, suede side up...a small leather strop. Contact cement works well to adhere leather to wood. Charge the leather strop with a metal cutting/polishing compound. I use Flexcut Slipstrop Compound, found at many woodworking tool stores.



PROCESS: Lay out the pivot polishers by ascending grit. Put a few drops of oil on each pivot polishing stick. Do not oil the leather strop. Start with a burnisher to dress the pivot shoulders. Always use oil in the pivot polishing process, including burnishing tool and graded stones. I start with 220 grit if the pivot is in horrible shape and 600 grit if the pivot looks good. Continue with successively higher grit polishing sticks, one touch at a time and in order of successively higher grits. Clean the oil off of the pivot and finish the job with the leather strop stick.

RESULTS: Consistency and personal satisfaction.

Wait. Don't Tell Me!

The tool on the right is an oiler. What makes it interesting? (Old timers may recognize the ruler.)

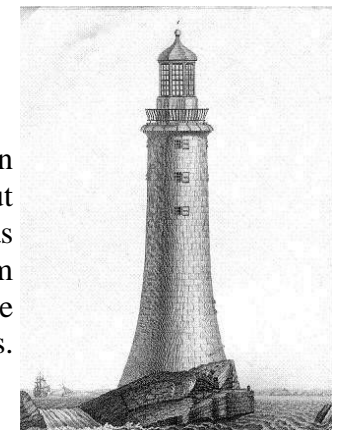


The Swatch watch introduced in 1983 is the most successful wristwatch brand of all time. It is often credited with saving the Swiss watch industry. What are some of the other brands made by the Swatch Group?



What is significant about this portrait of a man holding a watch? The portrait belongs to the Science Museum in London.

The Eddystone Lighthouse depicted on the right once stood on rocks 14 miles out to sea from Plymouth England. It was built by John Smeaton and stood from 1759-1882. Its fame is reflected in the fact that it appeared on British pennies. What is its horological connection?



OK, Now Tell Me.

The oiler is an “Obama Injector”. As noted in the December 2009 issue, there was also an Obama pivot lathe, and there are references to a hole gauge. The firm was located in Germany. Little else seems to be known about it.

The watch brands made by Swatch include Breguet, Blancpain, Glashütte, Tiffany, Omega, Longines, Hamilton, Rado, Calvin Klein, and Tissot.

The portrait from the Science Museum was recently discovered to have the Medici coat-of-arms on the back. This has lead curators to think it could be a portrait of Cosimo I, Duke of Florence and Grand Duke of Tuscany (1519 – 1574). More interesting to us is the suggestion that it may be the oldest depiction of a true watch. A close up is shown on the right.



Simon Willard’s lighthouse clocks (eight-day, weight driven, alarm) were patterned after Smeaton’s Tower. After the rock underneath the tower cracked the tower was dismantled and then reassembled on Plymouth Hoe as a monument to the builder. The stump of the tower was judged too difficult to dismantle and still stands next to the replacement lighthouse. (A hoe is an Anglo-Saxon term for a sloping ridge shaped like an inverted foot and heel.)



IMPORTANT DATES IN HOROLOGY

- 1818: Joseph Ives made a brass clock movement with steel plates.
- 1822: “Lighthouse” clock patterned after Eddystone Lighthouse in Plymouth England introduced by Simon Willard.
- 1824: Chauncey and Noble Jerome entered into partnership with Elijah Darrow to produce clocks under the name of Jeromes & Darrow.
Ives perfected a shelf clock using flat-leafed springs.
- 1825: Jerome patented a bronze looking-glass clock with bronze-colored pilasters, 30-hour wooden movement, and a mirror instead of a tablet.
- 1827: Jerome invented one-day weight driven, “OG”.
- 1830: Silas B. Terry patented a method for tempering coiled springs so they could be made inexpensively.
- 1831: Rolled brass became available and brass started replacing wood for clock plates.
- 1833: Elisha Brewster started a factory in Bristol under the name of Brewster and Ingraham.

CHAPTER LIBRARIES

BOOK: The Chapter book library is located at **Classical Clocks and Antiques**, 1086 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 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.)

CHAPTER #107 MEETINGS

Second Sunday of the Even Numbered Months

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

Future Meeting Dates

December 12, 2010 February 13, 2011
 April 10, 2011 June 12, 2011
 August 14, 2011 October 9, 2011

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.

Continued from page 6

Another feature implemented in many watches is that if it is sensed that the motor has not stepped, possibly due to a mechanical shock, a second set of pulses will be generated by the IC about 15 milliseconds later in an attempt to get the motor unstuck. The exact scheme for minimizing the battery drain will vary between manufactures and different models of watches, however they all use similar principles.

One problem worth noting is that these watches will continue to run and keep good time even as friction increases due to dirt or wear. However, the drain on the battery will increase and battery life will be shortened. The first time this happens, we may contribute this to a "bad battery" and simply replace the battery. If the second battery fails too soon, the watch should be inspected very carefully. If the proper equipment is available the battery current consumption should be checked.

Closing Thought

**You will never find time for anything.
 If you want time, you must make it.**

Charles Brixton