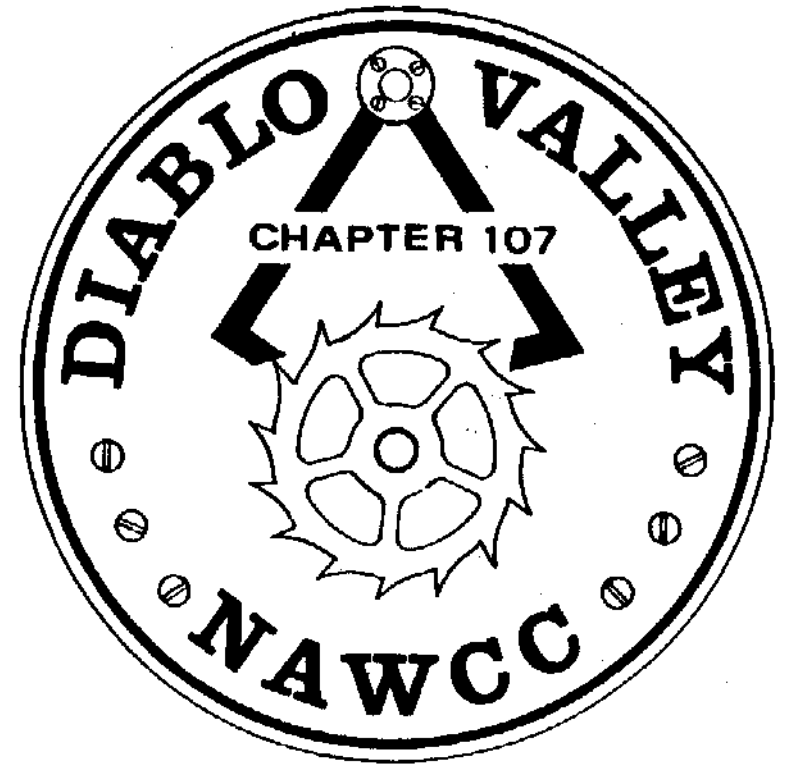


BULLETIN



December 2008
Volume 180

DIABLO VALLEY

Chapter 107

National Association of Watch and Clock Collectors

Chapter Established March 5, 1978

"Accent on Education"

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Tool Library	Walt Hubrig	925-685-0260	dottiewalt@astound.net

Meeting Notice

**December 14
11:00 AM - 3:00 PM**

Annual Holiday Program

**Election of Officers
Luncheon
Auction of Quality Pieces**

**Back Forty
100 Coggins Dr.
Pleasant Hill
(Corner Coggins and Buskirk)
(Map on page 15)**

**If you have not made your reservation,
contact John Stohr (925-376-6476)
immediately.**

TIME TO RENEW MEMBERSHIPS

★ Chapter dues are now **\$25.00** (spouse included). You may ★
★ pay at the next meeting or mail a check payable to "Diablo ★
★ Valley Chapter 107" to Earl Watrous, 4507 St. Andrews ★
★ Rd., Oakland, CA 94605. (The dues increase was approved ★
★ in February in response to increased expenses.) ★

President's Message

Everything you ever wanted to know but were afraid to ask is somewhere in a book. Nile Godfrey, our Chapter's Librarian, brought a small sampling at his presentation to the October meeting.

As you know, the library is at Nile's business (Classical Clocks & Antiques) in Livermore. (Address in back of *Bulletin*) If you've never been to the library you should check out a book and be sure to check out the store and all the antique clocks. Nile also has a useful library of his own, also on site (not for loan). However, he is usually available to assist you in looking up information on a variety of subjects.

If this wasn't enough information, Price Russ also has Chapters 107 and 5's Video Library. Also, don't forget our tool lending library, and if this doesn't get you started on your project or repairs, be sure to check out NAWCC's Library for video loans.

I would like to thank those who volunteered for next year's officers. *The pay isn't all that great, but the rewards are never ending.* I know most of you have served before, some more than once. That is what makes our Chapter successful.

Thanks for your support throughout this year and be sure to attend the holiday luncheon this December. Remember, there is a new location, so be sure to check the *Bulletin* for time and address.

Happy Holidays!

Dean



Editor's Page

In the previous issue, I lamented not having a picture of Ingrid and Gisela Kochmann. Sophie Gardener kindly provided this one. Speaking of the Kochmanns, the article on pages 6 & 7 by Tom is reprinted from *Bulletin* 52 (June '87). Nile Godfrey suggested reprinting it. Thanks Nile. Tom mentions the spring winder kits made by Royal English. Unfortunately they are no longer available for sale, but it is possible to make your own.



Thanks also to Jay Taylor for bringing the Jaeger-LeCoultre watch discussed on page 13 to my attention. I was pleased to learn through my internet browsing that in addition to producing fancy timepieces, Jaeger-LeCoultre is partnering with the UNESCO World Heritage Centre to protect and defend marine sites. Under its initiative "Making Time More Beautiful" they are currently working on the reefs in Belize.

Several years ago, I wrote about the tower clock on the Dollar Home, which is now a club house in Rossmoor. Carol Slatten reports that the clock is still there. She did not know whether it is in operation. Anyone have information on this?

Some of you may have noted some smearing in the October *Bulletin*. The printer was acting up. Of course I won't know whether it is an ongoing problem until I print this issue. If it is, we may have to consider repair or replacement.

Do you realize that this issue completes my 7th year as your editor? Time does fly. I will continue if that is the membership's desire. As always I need your contributions of articles and ideas. I want to extend a special thanks to those who contribute on a regular basis. Those contributions are essential to a quality publication.

Price

THE BARRELLED MAINSPRING

The mainspring is to be handled with extreme care. Always wear leather gloves and eye protection when working with a mainspring under tension.

Old clocks needing repair almost always have the springs wound as tight as can be. Who knows how long they have sat with fully wound springs? The springs need to wind and unwind regularly to remain useful. This keeps the grease on them from drying up.

Use a commercial “let down tool” when releasing the spring tension. Remove the barrels from the movement.

As you were releasing the springs you may have noticed the spring slipping and jumping in an irregular manner. This is called “spring lock”. It is more noticeable when the spring is let down slowly. “Spring lock” means the spring needs attention.

To remove the cap from the barrel, it is best to hold the barrel in the palm of your hand with the cap against the palm. The winding arbor will stick out between your fingers. Strike the winding arbor sharply with a hard rubber or wooden mallet. The cap should pop off. The inside of the cap must be smooth and free of nicks and dings. The notch on the cap is not a place to pry it off with a screwdriver. The notch is provided as a relief to allow the slightly oversized cap to snap firmly onto the barrel.

A broken spring can be removed one section at a time with pliers. A spring winder is needed to remove a spring that is not broken. Royal English built some spring winders to sell. He may have some left. His design is easy to use. I built a similar winder.

Once a spring is recoiled into the barrel by hand, without a mainspring winder, it will never function properly over a long term. If you have a spring winder, USE IT. If you don’t have one, GET ONE.

With the spring out and uncoiled, it is a good time to determine if it is useful. Hold the spring by the winding arbor and hold the winding arbor horizontally. If the spring is “coned”, replace it. If

the windings near the center are close together, replace it. If the end is torn, replace it.

Measure the width in millimeters with a machinist’s ruler. In millimeters, measure the depth of the barrel from the bottom to the lip of the barrel wall where the cap seats. The width of the spring should be about a millimeter less than this inside measurement. Measure the spring’s strength (thickness) with a micrometer.

The most important measurement, in my opinion, is the barrel diameter in millimeters. New springs come pre-coiled with a specific diameter. This determines the shape of the coils and what I call the “memory” of the spring motion.

Look at the parts book listings of mainspring sizes. First find the proper width. Then find the barrel diameter. Strength and length fall into place when you locate width and diameter. Generally, the strike spring on a time and strike mechanism will be stronger and longer, but just slightly. You may also wish to measure the length of your old spring by stretching it out. Incidentally, stretching a mainspring does not restore its vigor.

If you use your old spring, you must clean it. I am spoiled by ultrasonics and have never cleaned one in any other manner. Just make sure it’s real clean and smooth.

Re-grease with “Novostar” mainspring grease. Heat the greased spring up with a hand held hair dryer. Make sure the grease gets into the started coil at the winding arbor.

Before installing the spring in the barrel you should inspect the teeth of the barrel and also the spring hook on the barrel wall. Repair as needed.

Install the spring with a spring winder. Snap the cap back into place—hold the barrel with the jaws of a vice. Protect the barrel with wood or leather if your vice has rough jaws. Hammering a cap back on distorts and puts pits on the inside of the cap. Those pits and distortions will prevent the spring from unwinding properly.

Tom Kochmann



Bob Thomas



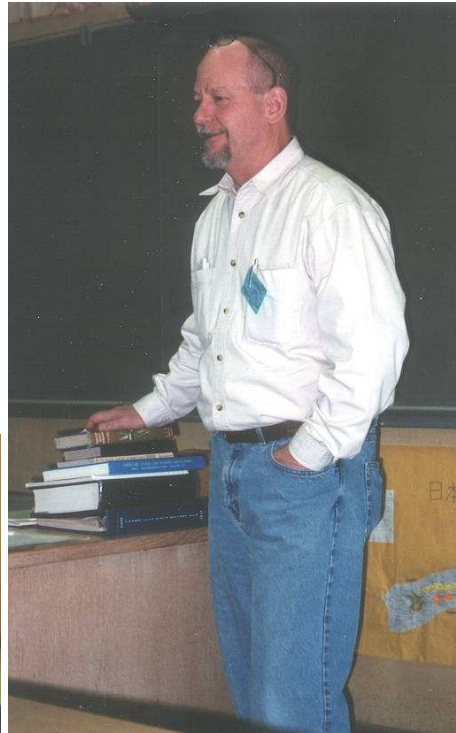
Cinde Godfrey



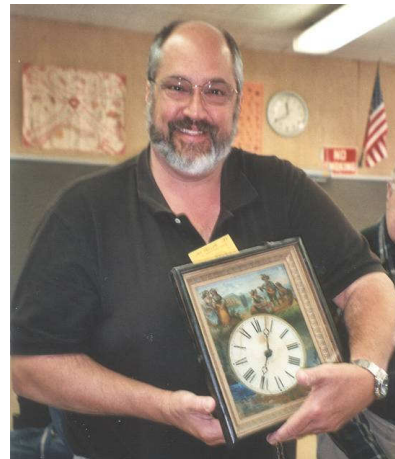
Jean Busher & Jan Wahrer

October 2008 Meeting

Photos by Sophia Gardner



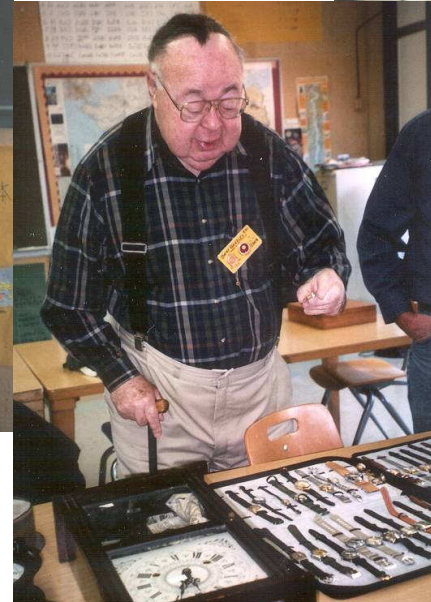
Nile Godfrey
(speaker)



Jay Taylor



Linda Towers



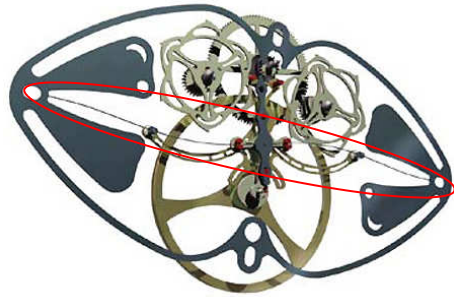
Bert Bradley



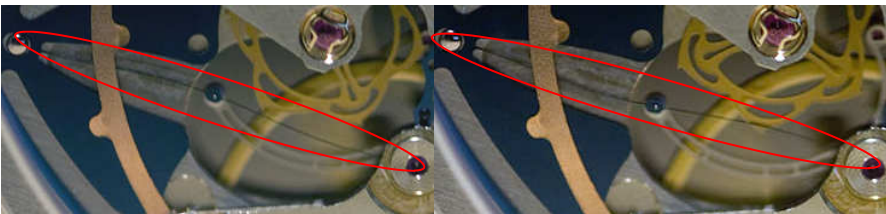
Roy Holman & Earl Watrous

A NEW ESCAPEMENT

Girard-Perregaux is experimenting with a new escapement that is intended to give a constant impulse to the balance throughout the unwinding of the mainsprings. This “Constant Escapement” movement is based on a compressed flat spring having two stable states. Think of slightly compressing a raffle ticket between your thumb and forefinger. The ticket will bow (buckle). Then flick the top of the bow with a finger from the other hand. The bow will snap from up to down or vice versa. This principle is sometimes used to make toys move. In that case one pushes a metal spring to make the toy jump forward. The energy released when the strip switches between states does not depend on how hard one pushes to make it switch states. In the case of the watch, the impulse power is supplied by a thin strip of silicon.



The impulse strip, which is about as thick as a hair, can be seen in the red oval superimposed on the diagram at the top and the photos below. Note in the photos, which show only one left half of the mechanism, that the strip has switched between states.

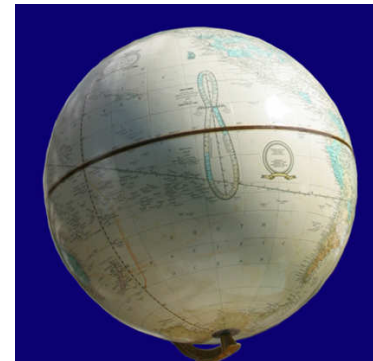


Those with internet access can watch a video simulation of the movement at www.girard-perregaux.com/swf/sihh08.swf

Girard-Perregaux hopes to have models on sale in 2010. In the meantime, the prototypes are making the rounds of watch shows. It will be interesting to see which of the various new technologies actually provides practical improvements in precision.

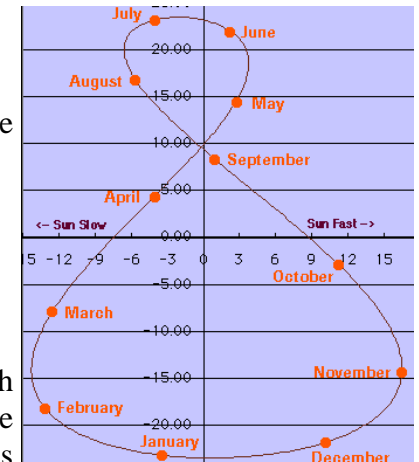
Wait. Don't Tell Me!

What part did Florentine Ariston Jones (1841-1916) play in horological history?



The “figure eight” on a globe is a representation of the earth’s *analemma*. It can also be shown graphically.

What is the analemma’s purpose and what determines its shape?

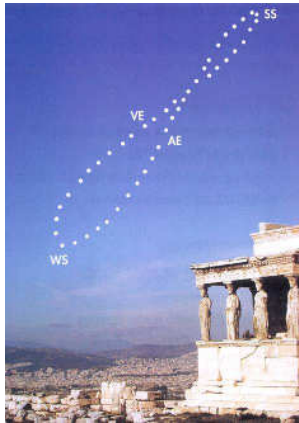


Everyone who has taken high school English has heard of the Venerable Bede (672-735). He is best known for *The Ecclesiastical History of the English People*, which was translated in 900 from the original Latin into the English vernacular on the orders of Alfred the Great. He also has an important place in the history of timekeeping. What were his contributions?

OK, Now Tell Me.

In the 1860s Elgin, Howard, and Waltham dominated the US watch market. Jones, a director in F. Howard & Cie of Boston, understood the market and the need for less expensive and more efficient production methods. At the age of 27, he traveled to Switzerland to investigate the possibility of using Swiss methods and cheaper Swiss labor to make high-quality movements and parts for the American market. In Schaffhausen he met Johann Heinrich Moser who had a hydroelectric power plant on the Rhine with excess capacity which equaled cheap energy. This led to Jones founding the International Watch Company (IWC).

The analemma is a representation of the position the sun has in the sky throughout the year at a fixed clock time. It is the basis of the “equation of time” - the difference between time measured by the sun and a clock. In the picture the equinoxes and solstices are labeled. The shape of the analemma is determined by the elliptical orbit of the earth around the sun and the tilt of earth’s axis. Its shape gradually changes over time. On graphical analemmas (page 11), the vertical axis shows the height of the noon sun above the equator. The horizontal axis shows the difference between solar and clock time.



Bede wrote on a variety of subjects including the reckoning of time. Through his writings we know about the lunar calendar and names of the months used by the Angles, but his greatest contribution to timekeeping was in promoting the use of the Dionysian system of dates, which is based on time since the birth of Christ. This system came into common use in the eleventh century but Bede used it in his writings in the eighth century. He also used the notion of “BC” to date events before Christ. Bede’s work set the standard for many generations of “computists” to calculate the date of Easter. Bede also wrote on the largest and smallest units of time.

INTERESTING NEW GADGETS

When you buy your next Aston Martin, be sure to order the Jaeger-LeCoultre Amvox2 DBS transponder watch to go with it. This is said to be the first mechanical watch to also function as a car key. At \$37,900, it is only a 10% addition to the cost of the car. By pressing the watch’s face between the 8 and 9, one can unlock the car’s doors. Pressing the face between 3 and 4, locks the doors. The dials were designed to resemble the instrument panel of the Aston Martin. Unfortunately it won’t be available until after Christmas, and there does not seem to be a lady’s model.



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.

There is no cost to borrow items from these collections.

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: Issues 6 - 27 of the Chapter 107 Bulletin. Contact Price Russ (925-937-9231) if you have copies you are willing to part with.

CHAPTER #107 MEETINGS

Second Sunday of the Even Numbered Months

Mart: 11:30AM
 Chapter: 12:30PM
 Board: after the Chapter Meeting

Future Meeting Dates

February 8, 2009 April 12, 2009
 June 14, 2009 August 9, 2009
 October 11, 2009 December 13, 2009

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.

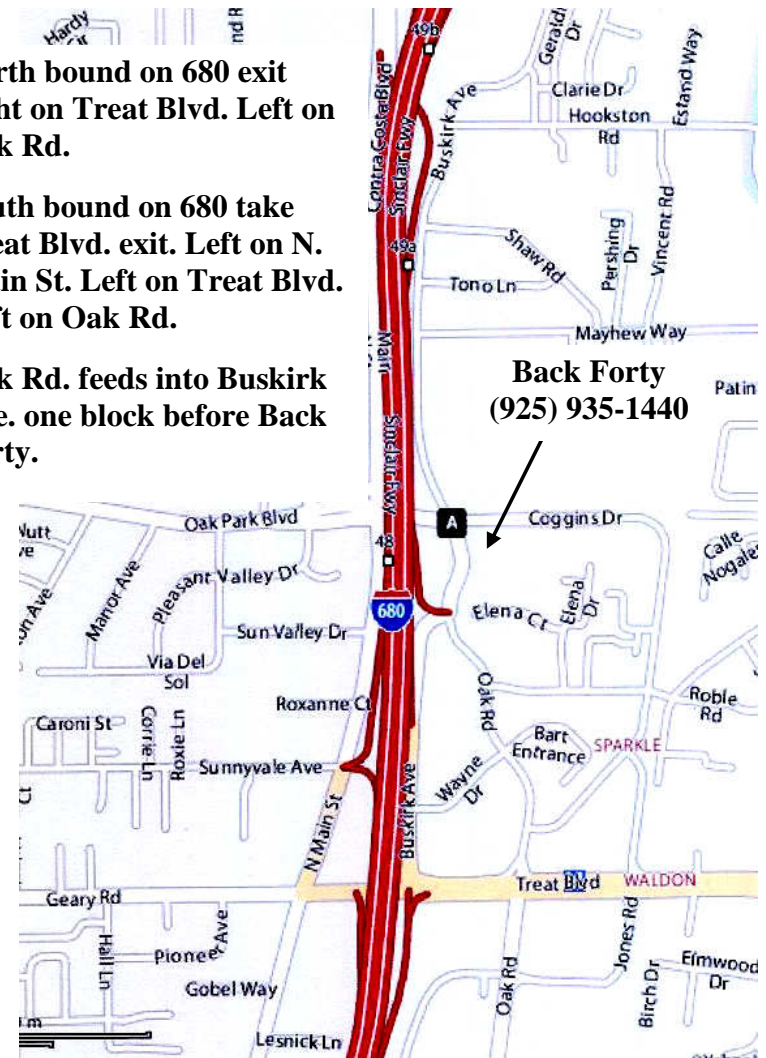
Other NAWCC Chapter Meetings in Northern California		
Chapter	Meeting Address	Meetings
De Anza #94	Odd Fellows Lodge 20589 Homestead Rd Cupertino, CA	2 nd Sunday even months (except April)
Monterey Bay #70	Live Oak Grange Hall 1900 17th Ave Santa Cruz, CA	3 rd Sunday odd months
Sacramento #71	Sacramento 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 BACK FORTY

North bound on 680 exit right on Treat Blvd. Left on Oak Rd.

South bound on 680 take Treat Blvd. exit. Left on N. Main St. Left on Treat Blvd. Left on Oak Rd.

Oak Rd. feeds into Buskirk Ave. one block before Back Forty.



**Back Forty
 (925) 935-1440**

Closing Thought

**Half our life is spent trying to find something to do with
 the time we have rushed through life trying to save
 Will Rogers (1879 - 1935)**