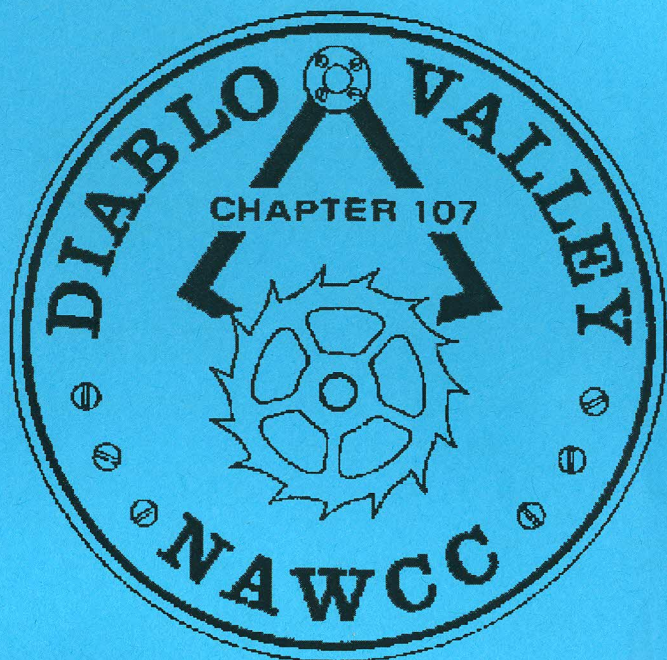


BULLETIN



February 2018
Volume 235



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, give-away, 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

February 11, 2018

Mart 10:30 Meeting Noon

There will be a reception with light refreshments at the end of the presentation.

Grange Hall, 743 Diablo Road, Danville

Max Nesbet who works with Dorian Clair,
will speak on
Repairing Interesting Carriage Clocks

Display: Tools for repairing balance wheels in watches and platform escapements. Please bring examples, particularly unusual ones, to display. A display case will be available.

Mart: The Board would like to see the mart continue to grow. Having silent auctions more regularly is one way to increase mart activity. They are also a good way to dispose quickly of items without having to sit at a table. To kick this off, a selection of horological books has been donated – profits go to the chapter. Members are encouraged to bring items to sell. Sellers keep the proceeds.

PRESIDENT'S MESSAGE

The 2017 Holiday Luncheon at the Back Forty was a great success. Thanks to all who worked to make the event possible, Walt Hubrig, for planning the event, D.H. Mayeron for leading the auction, and help from Price Russ and Nile Godfrey.

The election results voted in the slate of officers presented in the December Bulletin. No surprises, no write ins and no nominations from the floor. All, please consider volunteering for an office in 2019. Price and I would love to hear from you.

Present at the luncheon were two 107 original members Leonard Boone and Jack Coulter. It was great that they could join us.

The programs scheduled for 2018 meetings are as follows:

February: Max Nesbet who will speak on Carriage Clocks
 April: William White speaking on Manufacturing Watch Crystals
 June: Fred Friedburg will speak on Illinois Watches
 August is our picnic
 October is open
 December is our Holiday Luncheon at the Back Forty

Also, we are planning to have another Movie night this spring and a Field Trip is being considered.

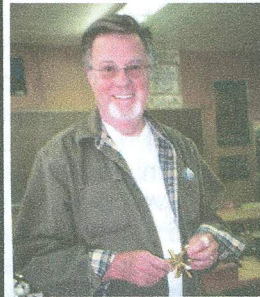
Lastly, please remember to pay your 2018 dues if you haven't already done so. Thank you.

Again thanks to the Board Members for their help and assistance and to all member for making 107 interesting and enjoyable.

Linda



IN MEMORIAM



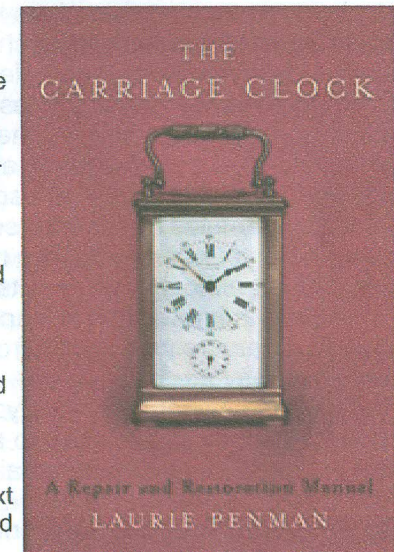
Long-time chapter member Phil Hart (age 79) passed away on January 15th after a long illness. Phil, assisted by his wife Lucy, rarely missed a meeting and was always an active participant in our auctions. In addition to collecting and repairing clocks, Phil, a native of Detroit, was a real estate agent.

We extend our deepest sympathy to Lucy and the family.

The Carriage Clock: A Repair and Restoration Manual

Laurie Penman (Author) 2004

This truly comprehensive and practical new work is the first book to be devoted solely to the repair and restoration of the carriage clock, and as such will be greatly welcomed by professional and amateur alike. It describes the variety of movements found in the clocks that were produced by the thousand in France. The details of the simple timepiece, strikers, alarms, quarter repeaters, and grande sonnerie are shown and discussed here. Over 220 detailed and accurate drawings display the operation of the more complex parts and the text describes symptoms, faults, and corrections of each type of movement in turn, with other chapters on tools, major repair techniques, cleaning, maintenance, and a list of suppliers of materials.



I found this site very interesting. The Abby Clock Clinic <http://www.abbeyclock.com/antiqueclockrepair.html>. They offer several interesting free PDF articles. Here is examples of some of what I found.

Clock Repair

I wrote the following projects in the course of my work in clock and watch repair. The information in these projects was developed by me personally as I came across various problems and sought for solutions that I was unable to find elsewhere. Whether you are looking for information about antique clock repair, grandfather clock weights, stress corrosion cracking in brass, atmos clock repair, or what clock tools to buy, you came to the right place. The projects are offered in their complete form with additional files for downloading and printing as you wish. You can also download them as PDF files for future reference. Be sure to visit my other website about collecting clocks and watches, with its large photo gallery of mechanical watch mechanisms.

Discover how much more there is to know about escapements with "Clock and Watch Escapement Mechanics." Other books treating escapement design specify the angles required in their design, but they do not explain how these angles and other measurements are obtained. This book gives you the theory behind escapement design and associated issues and will allow you to create your own escapement design, complete with schematic line-drawings, tables, charts and the formulas needed for setting up escapement design and testing from your computer (the menu below shows the results of this, in motion, although the results do not show the method, which is where the knowledge is learned!). Professional clock repairmen and amateurs can benefit from this theoretical treatment of the timepieces they are working on -- how they were designed and why. Regardless of what timepiece you are working on, ranging from an antique grandfather clock to a modern wristwatch, this insight can improve your ability to repair and adjust any mechanical timepiece that uses escapements.

You can now read the entire book online: [Clock and Watch Escapement Mechanics](#).

You can download my book to read off line as a free [EBOOK \(pdf\)](#).

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Here is the most exciting part of this website: computer simulations of the Watch and Clock Escapements *in motion!* I sure hope you will enjoy them because I spent an enormous number of hours creating each one, and even longer to create the animated files from each drawing. For example, I spent a total of about 25 hours on the Chronometer Escapement. The least amount of time spent creating an animated file was about 6 hours (for the Cylinder Escapement). The animations are intended to show viewers how each escapement is supposed to work, as this is designed to be a website for horological education! Knowing how each escapement is supposed to work would help you in designing or repairing timepieces, from antique clock repair to modern wristwatch design. Each animation may take a long couple of minutes to prepare itself, but seeing these complicated animated files in action is well worth the long wait. Be patient. If the animation does not work properly the first time, you may need to reload the page.

Morbier

The French Morbier clock is known as a provincial clock, to distinguish it from clocks made in major urban centres, primarily Paris. The clock was named after the village of Morbier, located about 30 miles North to North-West of Geneva on a trade route, la route nationale 5, between Paris and Geneva. Morbier was a rural, agricultural (dairy) community in the Jura Mountains of the Franche-Comté region, near the French border with Switzerland, famous for their Morbier cheese. Starting in the second half of the 18th Century, farmers began to manufacture clock parts during the cold winter months. These clock parts were purchased by finishers, who would assemble the parts to create a clock. The clocks were then ostensibly sold to travellers passing through town. Morbier clocks are also known as Comtoise clocks because of the Franche-Comté region where they were produced. Production stopped around 1914 because of the Great War. Tourism is a significant part of the local economy nowadays, supplementing income from agriculture, as the production of clocks once did.

To read the complete article go to <http://www.abbeyclock.com/morbier.html>

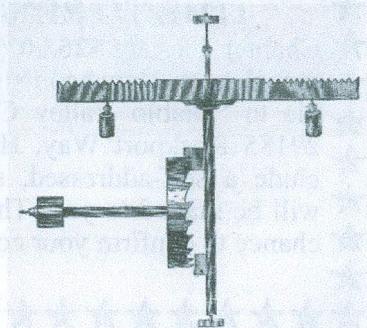
Here is a history essay about escapements as presented in the April, 2002 issue of the IEEE Control Systems magazine, [The Origin and Evolution of the Anchor Clock Escapement](#). You can download this magazine article to read off line as a free [EBOOK \(pdf\)](#).

The Origin and Evolution of the Anchor Clock Escapement
(A clock that, by natural motions alone, indicates regularly equal divisions of time.) —Mateo de Alimenis Campani (1678)

Introduction

The escapement is a feedback regulator that controls the speed of a mechanical clock. The first *anchor escapement* used in a mechanical clock was designed and applied by Robert Hooke (1635-1703) around 1657, in London. Although there is argument as to who invented the anchor escapement, Robert Hooke or William Clement, credit is generally given to Hooke. Its application catalyzed a rapid succession in clock and watch escapement designs over the next 50 years that revolutionized timekeeping. In this article, I consider the advances this escapement design made possible and then describe how horologists improved on this escapement in subsequent designs.

Before continuing, it is important to stress that the development of the escapement by generations of horologists was largely an empirical trial-and-error process. As will be seen, this process was remarkably successful despite being based on only an intuitive understanding of physics and mechanical engineering principles. Even today, the understanding of the dynamics of linkages under impact, friction, and other realistic effects, is incomplete. Consequently, the explanations I give in this article, concerning the evolution and operation of the clock escapement, are based largely on kinematic, geometric, and energy transfer principles.



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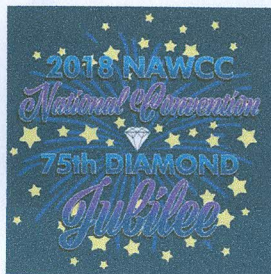
An escapement mechanism is a speed regulator, and it uses feedback to obtain precision operation despite imperfect components. The presence of feedback is realized by the interaction between the escape wheel and the escape arm, which interact according to their relative position and velocity. This interaction can be seen in Figures 1 and 2, where the verge-and-foliot escapement, one of the earliest escapements, is analyzed. It is with this escapement that I begin this description of the evolution of the anchor escapement.

Prior to the Anchor Escapement

The earliest record of a mechanical clock with an escapement, which is believed to date around 1285, was a reference to a payment for a hired clock keeper at St. Paul's in London. All the early mechanical timepieces are believed to have had a *verge and foliot* as the control mechanism for measuring the passage of time. The verge-and-foliot design was clearly based on the *alarum* (the alarm mechanism, with a hammer and a bell instead of a foliot), which was invented several centuries earlier. No one knows exactly when the mechanical clock was invented or by whom.

First, let us consider a clock consisting of a set of gears and a driving weight, using the force of gravity (see Fig. 1). In such a clock, the gears would spin uncontrollably unless a control mechanism were applied at the other end of the gear train. The control mechanism consists of an oscillating device that prevents the gear train from rotating, except at specific intervals, when it releases one tooth of the last gear in the train. By controlling the rate of rotation of the gears, it is possible to use this device to measure time by incorporating an indicator and a scale at the end of the shaft of one of the gears.

To see the complete article go to <http://www.abbeyclock.com/anchor.html> and download the free PDF



COME CELEBRATE WITH US!

2018 NAWCC NATIONAL

CONVENTION - JULY 19-22, 2018

WELCOME TO FELLOW MEMBERS, FRIENDS
OF THE NAWCC AND ASSOCIATED ORGANIZATIONS.

As Co-Chairs, we would like to introduce you to the **2018 NAWCC National Convention**, an event that is not only our annual convention, but also a special celebration not to be missed!

We have been working very hard for the past two years to make this celebration one of the most memorable with a great mix of fun, networking events and education.

We have so many things planned!

- A full day party at the NAWCC Headquarters to meet members, see the facilities, and enjoy great food and music
- Museum and Library backstage tours, lectures and videos
- A live Auction at Utz Arena Friday
- FASW and AWCI workshops
- Huge 2-day Mart at the York Fairgrounds

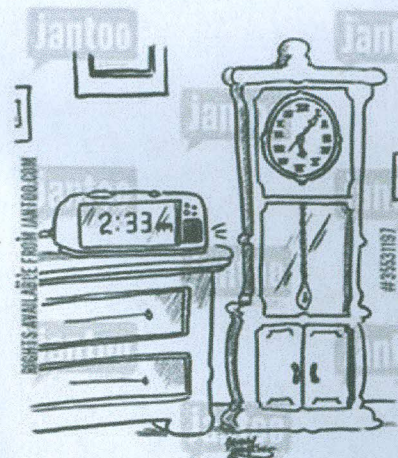
Join WWT Wednesday July 18 & Thursday July 19, 2018 at the UTZ Arena. Please contact them and let them know if you will be attending their show, and also if you will need showcases or a safe for the 2018 NAWCC National Convention. You can arrange to use the same tables at both WWT and NAWCC.

The York UPS Store will set up Saturday Afternoon from 12 noon till 4 p.m., and Sunday 9 a.m. to 12 p.m. for members wishing to ship items home.

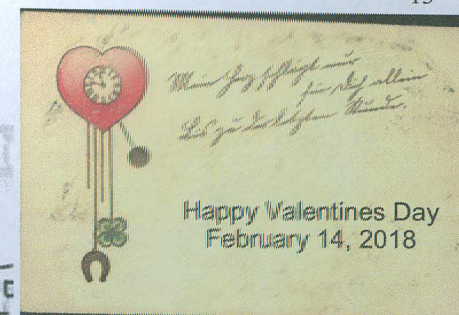
Please make sure you make hotel reservations as soon as possible. It is better to make the reservations and cancel if something comes up or plans change, than to not be able to find a hotel room of your choice.

We are planning a special auction on Wednesday July 18 of donated Horological items that will benefit the For All Time Endowment and Capital Campaign. Members wishing to donate Clocks, Wristwatches, Pocket Watches, Barometers, Chronometers, Horological tools and other Horological items can donate any time during the year. Depending on the quantity of items donated, items over a to-be-determined value will be sold at public auction on Wednesday and other items will be sold by other means. All items must be donated at least 30 days prior to the sale. Support the NAWCC and donate today!

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.



"How ya doin', old timer?"



©Dan Piraro

THE CLOCK OF LIFE

The clock of life is wound but once,
And no man has the power
To tell just when the hands will stop
At late or early hour.

...
To lose one's wealth is sad indeed,
To lose one's health is more,
To lose one's soul is such a loss
That no man can restore.

The present only is our own,
So Live, Love, toil with a will
Place no faith in "Tomorrow"
For the clock may then be still.

-----Robert H. Smith-----

CHAPTER #107 MEETINGS

Second Sunday of the Even Numbered Months

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

Future Meeting Dates

April 18, 2018	June 10, 2018
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 2017 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	Community Foundation 7807 Soquel Drive 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.

