



The Watch That Saved Switzerland

by Henri Bonnet

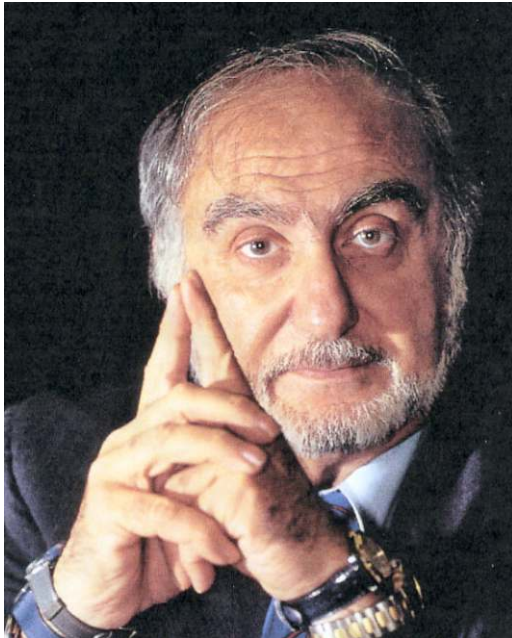
How can a rich country like Switzerland possibly be saved by a watch? Is this gross exaggeration? Perhaps. But the fact remains that in the late seventies, a major segment of Switzerland's industrial base (the watch industry), had been at risk of imminent collapse. People dreaded to think what might have happened to the country without its thriving and lucrative watch industry. Certainly, the world's center of quality watch production for the past century had been Switzerland. So, what went wrong?

In the sixties and early seventies, major innovations in microelectronics began to find applications into the consumer sector. Advances in miniaturization technology made it possible to produce electronic watch movements of a diminutive size, not previously achievable. Thus, the quartz wristwatch was born. Undoubtedly, the Swiss were the most accomplished producers of micro-mechanics, primarily wristwatches. However, mechanical timepieces were chiefly value added products that required extensive skilled labor input to manufacture. The high cost of Swiss labor being, by and large, responsible for the relative high price of Swiss watches. Quartz wristwatches, on the other hand, could be mass produced inexpensively with a minimum of human intervention. They could be marketed to people who lacked the means to buy Swiss mechanical timepieces. So, began the epic battle between micro-mechanics versus microelectronics.

The Swiss, as well as the Japanese, capitalized on the new microelectronic technology and both countries began to make quartz wristwatches. However, the Swiss, true to their culture, opted to produce beautifully crafted expensive quartz timepieces such as the now famous Delirium; for example.

The Japanese, on the other hand, concentrated on making simple everyday inexpensive quartz wristwatches for the

average consumer. The outcome was now up to market forces to determine which would win. Obviously, the Swiss, with their experience in producing high quality (though expensive), timepieces expected to emerge the victors. Well, they were wrong! Of course, today we know what eventually happened: the late nineteen seventies witnessed the rapid collapse of the Swiss watch industry. Switzerland went from a 70% share of the watch market to 10%. Certainly, the oil crisis had also been a contributing factor, and the ensuing worldwide financial instability didn't help either. Creditors and investors of the many bankrupt Swiss watch manufacturers loudly began to demand action.



Nicolas Hayek. Note the watches on both wrists.

Nicolas G Hayek (educated in France with a background in math and physics), chairman of the Hayek Engineering Company in Zurich, was asked by the banks to reorganize the watch industry. He promptly merged two major rival watch producing conglomerates, (ASUAG + SSIH) into a new group (SMH.) He also consolidated the production of watch movements into a single entity (ETA sa) to avoid duplication. Using all technological and human resources thus available to him, he started to produce an inexpensive wristwatch that he believed could beat the Japanese at their own game:

THE SWATCH! First marketed in 1983, with a plastic case, a plastic strap, and a machine produced quartz movement; the Swatch was indeed manufactured at a fraction of the cost of its nearest Japanese competitor.

While a cheaper watch might improve the sales of Swiss quartz watches, the real genius was how they were marketed. The Swatch was designed and marketed as a bold "fashion accessory," and sold at department stores, drug stores, clothing stores, etc. The traditional outlet for watches had been exclusively through jewelry stores. Because of its low cost, high accuracy, and availability, millions of people began to wear Swatch timepieces.



Swatch, early design

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PRESIDENTS MESSAGE

By Mike Schmidt

The fourth Annual Mart was a great success. The 87 tables were full and the attendees were busy making some great buys. The NAWCC members and attending public brought in a good mixture of clocks and watches to be evaluated. There were a few delightful surprises when our evaluators were able to identify some rare clocks and watches. The show's good selection of jewelry, collectables, and antiques kept the many attendees busy buying while waiting in anticipation for the door prize drawings.

A thank you for all who donated prizes for the drawing; Island Packers for their generous donation of a pair of tickets for a whale watching trip, Henri Bonnet for a very nice spring-driven Vienna Regulator, Alan Davis for a very special handmade exotic wood pencil, and Chapter 190 for the \$200 Island Packers Island Adventures gift certificate.

Many of our table holders came long distances and decidedly made a nice mini vacation in Ventura, enjoying the nice sunny weather and ocean breezes. Visits to the pier, beaches, restaurants, and "Old Town" made for a special weekend.

I want to thank Ernie Jenson and the Mart Committee for all the tremendous effort put forth in making this event a great success. I wish to thank all who stepped forward to give a hand when they saw the need and we want to give a special thank you to Jim Chamberlain, for once again providing the museum quality clocks for our public display.

Most of you who read our newsletter, receive it through email links to our Chapter 190 Website. I want to bring your attention to the many other features in the Chapter website. The most valuable tool provided for you in the website is the "LINKS" selection on the Home Page. The Horological links provides access to a tremendous amount of information: from the NAWCC research; to clock and watch parts vendors as well as to horological books. Also check out the Clock and Watch features - if you go to the very end of Clock information you will find a very nice table for dating Morbier's. Have some fun with the web page and do some exploring. Make the webpage one of your favorites for easy access. Our webmaster Dave Coatsworth has made our Chapter website a convenient and valuable horological information tool.

Congratulations go to all the students who completed the April FSW 103 "Introduction to Chime Clocks", Instructor Ray Marsolek, assistant Lex Rooker, Students: class coordinator Laurie Conti, Giorgio Perissinotto, Bob Parsons, Glen Webb, David Rubright, and Rich Brinser.

The free workshops given prior to our monthly meetings have been terrific. If you want to learn or get some help with a repair problem, this is the place to be. The next round table workshop at 10:30 AM will be led by Lex Rooker. The starting topic will be "Building a work station" and how to organize and set up a work area. Find ideas on how to save time and organize your tools. All horological questions are encouraged. A watch workshop will follow at 11:30 and will be led by Jorge Montoya. The coffee will be on early.

See you at the Meeting *Mike*



Happy Birthday

George Antinarelli, Russel Frey,

George Gaglini, Mostyn Gale, Frank Huttlinger,

Bruce Maclaughlin, & Julie Palladino,

Consumers often purchase several Swatch designs to accommodate their mood or clothing.

Due to clever marketing, and the production of analog wristwatches exclusively (which people preferred over the digital quartz watches), Mr. Hayek created an entirely new market that put the Swiss watch industry back on the map. Switzerland's industrial base was thus saved, thanks to the inexpensive, disposable Swatch.

Nicolas G Hayek, who later became chairman of SMH (later renamed The Swatch Group,) will forever be remembered as the savior of the Swiss watch industry, thereby rescuing the country from feared economic depression. Following his success with Swatch, Mr. Hayek subsequently set out to rescue the producers of mechanical timepieces as well. Many of the well known famous brands who were facing bankruptcy began to thrive again and fill the market with new offerings. There is no question that Mr. Hayek was an astute businessman and an exceptional leader. When he died on June of 2010, at the age of 82, some 350 million Swatch timepieces had been produced and sold the world over, and The Swatch Group became the largest watch manufacturer in the world. Nicolas G Hayek was indeed a giant of industry, and will never be forgotten. What Switzerland owes this single man can hardly be evaluated. He will be missed by many, including all watch lovers. ■



What a man decides to have put on his tombstone says a lot about what was important to him in his life. One would think that a man like Thomas Jefferson might need several tombstones to cover all of his accomplishments. Surprisingly, the inscription that Thomas Jefferson personally wrote, left out many key things. His tombstone reads: "Here was buried Thomas Jefferson, author of the declaration of American Independence, of the state of Virginia for religious freedom, and the father of the University of Virginia". You'll notice that he doesn't mention that he was the second vice president of the United States or even that he was the third president. ■

From "Stupid American History" Tales of stupidity, strangeness, and mythconceptions

This issue is the 50th edition of our newsletter, The Chrono Times. Our first newsletter was published in December 2006, one month prior to our first meeting. I believe that issue had one article by Robert Gary and the rest of the newsletter was articles written by myself. It didn't take long for that to change. Chapter 190 members began to respond by supplying me with great articles.

I have published newsletters for other organizations and it is like pulling teeth to get members to contribute articles, but Chapter 190 is very special in this regard. Its members and board of directors show a great pride in their organization and consequently go all out to support it, and indeed they do. Our little publication is now read worldwide, and we continuously receive accolades on it.

I would like to thank and acknowledge the many contributors to our successful newsletter. By far, the most prolific writer is **Henri Bonnet**, who has written around 35 fascinating wristwatch articles. A close second is **Ferdinand Geitner**, who, as you know, writes the column "Tales From the Bench." **Mostyn Gale** has kept us abreast of the progress of the Santa Barbara Tower Clock Gallery project. **Ernie Jenson** has taken us step-by-step through the repair and technical aspects of the tower clock.

One of my favorite columns is "Chapter 190 People". It gives us the opportunity to get to know our fellow members. Authors of this column have been **George Gaglini, Kris Clarkin, Robert Gary, Mike Schmidt**, and myself.

Other regular contributors to our newsletter are, **Dave Coatsworth, Giorgio Perissinotto, Bill Robinson, Paul Skeels, and Daniel Weiss**. I hope that I haven't left anyone out.

Another element that makes for a good newsletter, is photographs. All of the meeting photographs are provided by **Bill Robinson**. Not only does he tirelessly and routinely take the photos, but he also adjusts them to my exact requirements for the newsletter. This saves me a lot of time.

If you would like to contribute an article or if you have an idea for a regular column, please let me know. It is very easy to be published, just give me your story, in any form, and I'll take care of formatting, spelling, etc.

Last, but not least, I would like to thank my wife **Lynn**, for her expert proofing.

Thank you all, and let's keep it going strong.

CHAPTER 190 PEOPLE

by Mike Schmidt

Bob McClelland



Bob grew up in Kansas and graduated from Wichita University in 1958. With his degree in mechanical engineering in hand, Bob moved to California to accept a position with Rocketdyne, a separate division of North American Aviation. Bob's career included work in the Atlas, Thor, and Jupiter engines programs. He also worked on the water jet pumps for the Boeing Jetfoils, and the engines for the Delta programs. Bob completed his career as Managing Process Leader of the Rotating Machinery Design Group at Rocketdyne, now a division of Pratt and Whitney.

Bob recently retired in 2010 after completing 52 years of service. He now lives with his two sons in Woodland Hills.

Bob's interest in horology is in collecting and studying the history of pocket watches and wristwatches. His interest began when he rediscovered his grandfather's 1888 Model Waltham and decided that it was not too far a stretch from working with rotating machinery and understanding the complexities of pocket watches.

After doing research to determine what would be required to restore his grandfather's pocket watch, and a few more pocket watches acquired from eBay and other auction sites, his interest was solidified. He was a hooked collector and became a member of the NAWCC, then joined Chapter 190 in November 2010.

Bob has developed a keen interest in the Hamilton's railroad watches and particularly the 992 series, and their 19 jewel models. His present favorite pocket watches are a recently acquired Waltham 1908 Vanguard 19 jewel and a Hamilton 992E which completed his collection of the major 992 models. He has many other favorites, with the one he has recently acquired usually at the top.

In 1972 "Viceroy" cigarettes had a special, one time only, promotion where you sent in the end of a carton box

with \$88 you could purchase a Heuer Chronograph. The watch was mailed and delivered to his home and the package was left on his front porch. When Bob came home from work that day he discovered that someone had attempted to break into his house and the package containing his watch was missing. Bob contacted the promotion department to tell his story and explained the loss. They agreed to replace the watch for another \$88. The Heuer Chronograph has recently been repaired and is a prized possession with a current value of \$1500.

In talking with Bob, I found that his other interest is rifle target shooting. Some years ago he was good enough to get himself an Olympic team tryout.

Bob found Chapter 190 through the NAWCC website and joined in November. He has taken the FSW302 Beginning Wrist Watch Repair class and is signed up for the FSW300 Beginning Pocket Watch Class.

You can usually find Bob at our meetings checking out the mart tables, Dave Coatsworth's watch parts, and tool tables or at the Sunday meeting workshops. ■

EDUCATIONAL OPPORTUNITIES

FSW 301 *Introduction to Basic Pocket Watch Workshop* instructor **Ferdinand Geitner**.

This is a 4 day workshop offered April 29 - May 2
coordinator **George Gaglini 805 647-6463**
email ggaglini@roadrunner.com

FSW 101 *Beginning Clock Repair*.

Instructor: **Ray Marsolek**

This is a 4 day workshop offered October 7-10
coordinator: **Ralph Napolitano 805 509-2530**
email ralphnapolitano@msn.com

NOTE! DATE & VENUE CHANGE

Chapter 190 is sponsoring a One Day Workshop IMPROVING YOUR PHOTO TAKING AND PHOTO EDITING SKILLS

INSTRUCTOR: Ken McWilliams

**9:00am to 5:00 pm
SATURDAY, Aug 6th
at the Dudley House Museum
in Ventura, Ca**

THIS WORKSHOP IS FOR DIGITAL CAMERAS

**Workshop fee: \$45. Space is limited, sign up early.
Contact Ken McWilliams to register or for info
(818) 718-8300 • internet@socal.rr.com**

Tales From the Bench

by Ferdinand Geitner

Intentional Friction

Every watchmaker, clockmaker and mechanical engineer learns about friction; how to avoid, eliminate, or reduce it as much as possible. But there are occasions when it is necessary, like the brakes on one's car, no friction and you crash.

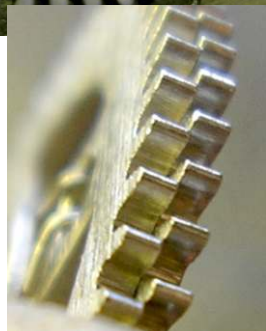
In clocks and watches friction is an enemy as the power available to drive the mechanism is nowhere near the torque of a car engine. There are instances when friction is applied to a gear in a watch or in a clock; a loose connection with a controlled amount of friction between the power train and the motion work (hands), so one can set the time independently without turning every wheel in the clock, but this does not affect, or interfere with, the transmission of power to the balance or pendulum.

It is the hands which occasionally get some extra friction when the motion works is not in line within the normal layout of the gear train, but engaged alongside. This creates some free movement (backlash) in the gears which are not under tension and translates into loose movement of the minute hand. The minute hand would be about a minute or more behind between the half hour and the hour and about one minute or more ahead between the hour and the half hour due to gravity.

To avoid this inaccuracy, designers came up with many different methods. In a Russian ships clock there is

a double minute wheel; two wheels on top of each other with a spring pulling in a clockwise direction. The wheel needs to be installed by twisting it under tension so it's teeth (acting like scissors) will

hold the tooth of the cannon pinion it engages with (creating friction) and eliminating backlash. This is an elaborate method which can stop the clock if the wheel is dirty/sticking, etc.

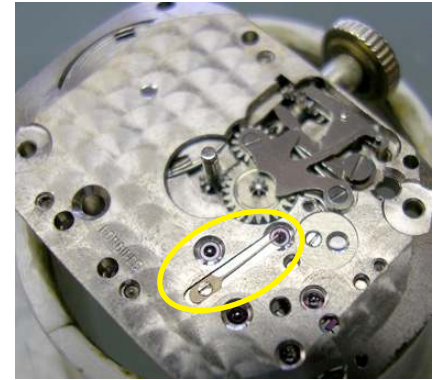


Another method used by American Clock manufacturers is a relatively stiff brass "spring" riveted to the plate and rubbing on the center wheel to eliminate play in the hands.

Watchmakers need a more delicate (but similar) method. It is usually a fine spring rubbing on the back of the center seconds pinion or pushing up from below against the bottom of the pinion alongside the shaft to stop a flopping second hand.

Rolex used a novel method for some time. The center second pinion had a small round magnet attached and there was an opposite magnet mounted in the plate creating magnetic drag.

Whatever the methods used, it has to be adjusted to be just enough to do the job it's designed to do without interfering too much with the gear train. This is a very delicate balance, indeed. ■



**The next Meeting & Mart for Chapter 190
is May 15, 2011**

Sellers may start setting up at 11:30

The Mart is open from 12:00 til 1:15

The Meeting starts at 1:15

PROGRAM

"Carriage Clocks"

Presented by Ferdinand Geitner

Carriage clocks have always been popular among clock collectors. As always, expect an interesting and informative presentation from Ferdinand.

SHOW & TELL

"Carriage clocks"

The Murals of the Santa Barbara Tower Clock Gallery

by Mostyn Gale

Of course the centerpiece of the Clock Gallery is the magnificent Seth Thomas tower clock, but when all is completed, the clock will be surrounded by over 60 feet of beautiful mural, seven feet high. The mural will fully occupy three of the four walls of the gallery and was painted by local Santa Barbara artist, Ed Lister. See <http://www.edlisterscenic.com> for more about Ed. The fourth wall will be mostly clear crystal glass. Nine feet of this wall will tell the story of Seth Thomas, the man and the company, and show the original order for the Santa Barbara clock, S/N 2744. The Seth Thomas story is told on a large graphic created by Michael Silverander, another local Santa Barbara guy. See <http://www.silverander.com> for more on Michael. The glass wall allows visitors walking the tower stairway to admire the gallery even when it is closed. Due to the susceptibility of the both the clock and the mural to damage, the gallery will be closed except for guided tours.

One of the concepts of the clock gallery is to encourage visitors to gain an appreciation for the history of timekeeping – this is the primary function of the mural. Its beauty, detail, and sheer size draw the visitor in to whet his appetite to learn more. Broken into three panels, covering three periods of timekeeping history, no fewer than 30 “vignettes” draw attention to various aspects of timekeeping history – both the people and the devices they created.

The first panel depicts timekeeping devices that were created before A.D. 1600 – from the clepsydra, to the obelisk, to Dondi's astrarium, 13 different devices are displayed.

The second and largest panel depicts people and devices from the time period between 1600 and 1800. This includes portraits of the greats and their devices; Huygens, Tompion, Harrison, and others. These are set in the backdrop of the Santa Barbara channel reminiscent of the day the Santa Barbara Channel was named by Sebastian Vizcaino on December 4th 1602.

The third panel depicts people, devices, and places from 1800 up until the year the clock was installed in the courthouse, 1929. Of course, a portrait of Seth Thomas is there along with Chauncey Jerome, Big Ben, the Waltham Watch Factory, and more. The creation of the time zones is also there along with a bird flying along the

top of the mural because “time flies.” How amazing it would have been to live then – with so many new discoveries of the world! Of course our times are also very exciting but there is something about those old days that fascinate.

When it finally opens, I hope you get a chance to see this beautiful gallery – officially named the Bisno-Schall Gallery, after the folks who made it financially possible. We thank them and also all the volunteers from Chapter 190 who made it happen.

NOTE: The photographs show the mural in process in the basement of the courthouse and due to copyrights (owned by Ed,) they are necessarily general in nature rather than showing detailed close-ups. ■



The early years, prior to 1600



The mid years, 1600 to 1800



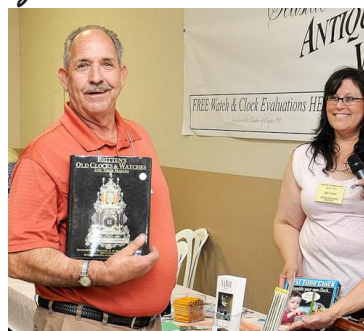
The later years, 1800 to 1929

THE EXTRA PAGE

FACES SEEN AT APRIL'S SEASIDE MART *Photos by Bill Robinson*



The door prize winners



CLASSIFIED PAGE

This page is dedicated to advertising for Chapter 190 members. It is, of course, free to members.

SERVICES OFFERED

The Montecito Clock Gallery

Restoration, repair, sales of clocks and watches.
Ferdinand Geitner, mbhi, owner and operator
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FOR SALE

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WANTED

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Hamilton 21 Marine Chronometer in running condition, with
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Please contact: **Giorgio Perissinotto**

E-mail: giorgio@spanport.ucsb.edu

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Email: ralphnapolitano@msn.com

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Winding hole spacing of 38.9 mm, (1.53")

Repairable, other details available on request.

Bob Reichel, welchdoc@yahoo.com **Ph: 1-206-364-7374**

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Loren Miller, Pacific Coast Clocks

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Located in Firehouse Plaza (Main St. & Telephone Rd.)

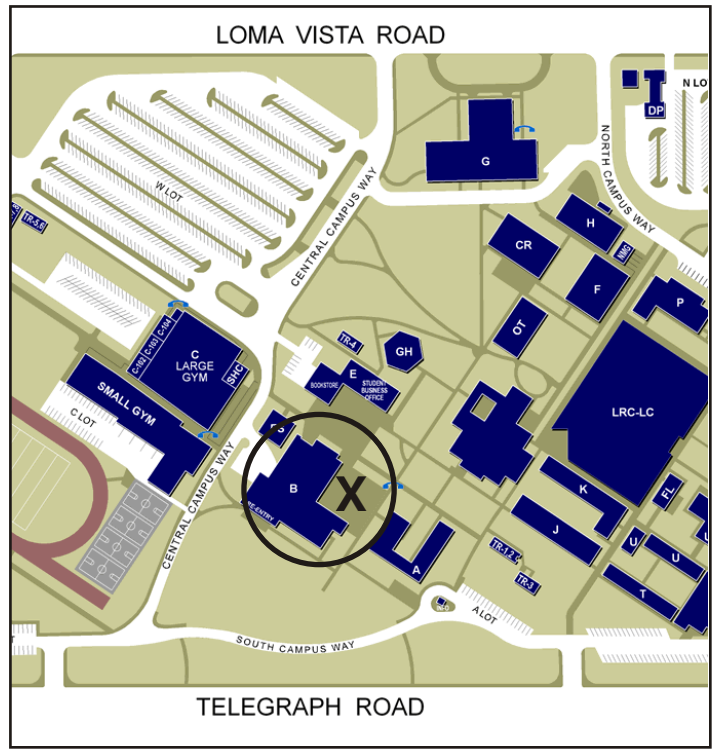
Tel. 805-650-8800

- Watch Repair Tools -

I'm just starting out and need just about everything.
I would prefer to purchase an entire collection of old
watchmaker's tools.

Please contact: **David Clarkin Tel: 805-988-4384**

The Chapter 190 meetings are held the third Sunday of each month. (No meeting in December)
 We will meet in the cafeteria on the Ventura College campus. The cafeteria is located in building "B", east of the gym and athletic field.



May 2011 Issue

NEXT MEETING
MAY 15



Chrono Times
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