

HOROLOGICAL TIMES™

ADVANCING THE ART, SCIENCE & BUSINESS OF HOROLOGY

JUNE 2011



**SPECIAL
EDITION**

**2011
CONVENTION &
EDUCATIONAL
SYMPOSIUM**



AMERICAN WATCHMAKERS-
CLOCKMAKERS INSTITUTE

This Month's Focus: *The Upcoming Convention*

Welcome to Vancouver, Washington

Winding Intermediate Wheel Post Repair, Part 2

Restoring the Long Case Clock

Tool Tips: A Sensitive Issue

Questions & Answers

New Sizes Elma Ultrasonics!



VIB-S40H



VIB-S60H



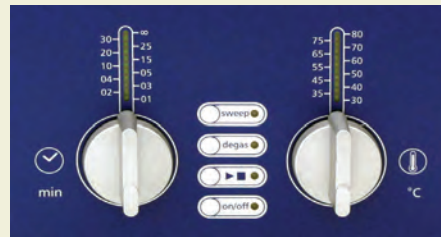
VIB-E120H



Feature rich ultrasonic cleaners offer great results in a variety of sizes to fit your shop's needs. Check the sizes on the left and the features on the right.

Stock #	Tank Size	Price
E Series		
VIB-E30H	9.4" x 5.4" x 3.9"	\$ 355.00
VIB-E60H*	11.8" x 5.9" x 5.9"	730.00
VIB-E120H*	11.8" x 9.4" x 8"	898.00
S Series		
VIB-S30H	9.4" x 5.4" x 3.9"	545.00
VIB-S40H*	9.4" x 5.4" x 5.9"	785.00
VIB-S60H*	11.8" x 5.9" x 5.9"	961.00
VIB-S120H*	11.8" x 9.4" x 8"	1448.00

*new sizes



Time Temperature
S Series Controls

Features	E	S
Cavitation resistant stainless steel tank	x	x
Dry-run proof ceramic heating	x	x
Heated tank for faster cleaning	x	x
Set to permanent or short term operation	x	x
Lid reduces noise and acts as drip tray	x	x
Knob controlled tank drain (except E30)	x	x
Set temperature between 30° and 80° C	x	x
Sweep functions	x	x
Pilot lights show timer and heat are on	x	x
Cleaning auto starts when temperature is reached	x	x
Degas to speed up the cleaning process		x
Choice of sweep or regular ultrasonic action		x
LED lights show temperature of cleaning solution		x
LED lights show cleaning period remaining		x
More ultrasonic power than E Series		x

Elma Values for Your Shop



Clean watch parts manually using a 3-jar system and heated drying chamber. Rotation is in one direction. Square jar shape adds to agitation.

VIB-SE1
Elma Watch Cleaner
\$1,595.00



Special purchase—Limited supply at these prices!

Supplies adjustable current to the movement without a battery. Analyze the function of a quartz watch and view its timing rate. Measure the integrated circuit consumption, average IC consumption usage, coil resistance, battery voltage up to 5 volts.

VIB-WATCHMASTER2
Quartz Analyzer by Witschi
\$2,295.00



Analyze the function of the mechanical watch and display the rate or timing accuracy of the watch in seconds per day. Measure the coaxial escapement, rate of watch, amplitude in degrees, beat error and beat noise.

VIB-WATCHMATIC3
Mechanical Timer by Witschi
\$2,695.00

Prices subject to change based on current exchange rates



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a message from the president

BY MARK BUTTERWORTH



I am writing this message shortly after returning from a Finance Committee meeting at our headquarters in Ohio. First, I want to say again what a dedicated team of both committee and staff members we have working to benefit AWCI and its members. By the time you read this column, the Board will have discussed, and hope-

fully passed the proposed budget for the coming fiscal year.

Assuming passage of the budget by the Board, I feel I can say a number of things. It is a balanced budget, which is very difficult in these economic times. At the same time, it provides for some very important things. Using funds from the current budget and next year's budget, a needed software and hardware computer upgrade will take place. Money is being allocated for clock repair education as well as CMC21 and CMW21 certification programs. We will be able to offer traveling clock repair bench courses with excellent instructors. Thanks to both the Rolex Challenge Grant and Richemont, the watch classroom will be upgraded to a state-of-the-art instruction facility. I believe the watch technician program can become a reality, as well. The Perpetuation Fund is well managed and in great shape. In fact, at this point, the Fund is actually providing more revenue to AWCI than members' dues money.

Horological Times is looking better and better, and I believe the new layout is responsible for attracting more article content from some very talented people. We are getting new advertisers even in this economic environment. Advertising helps pay our bills for the magazine. However, it is also a way for repairpersons to find out what the material houses have to offer. Please support the businesses that advertise with us, and tell them we appreciate their support. It's a two-way street.

I also want to say "thanks" to our nominating committee for their hard work again this year. We have a great field of candidates. The Board and staff have really worked together this year for the best interests of AWCI, and I have every reason to believe the next Board will do the same. Although things never move as quickly as we would like sometimes, we need to

remember our committee members are, for the most part, bench repairpersons making time from their schedules to move AWCI forward.

I hope you will take a hard look at the annual meeting schedule during the first week in August and make plans to attend. More time is being added to give you the opportunity to meet with various suppliers and to provide suppliers with a chance to demo some of their offerings. It's very helpful to spend some "face time" with individuals whom we have been talking to over the years via the telephone or internet. Of course, the Vancouver, Washington area is beautiful (I understand), and I plan to spend some extra time there.

Finally, let us know for strategic planning what your goals are for AWCI. Send me a letter or simply e-mail me at mutterworth@awci.com. It's important that we hear your thoughts and ideas so we can tailor our programs and benefits to meet your ongoing needs.

FREE watch batteries

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a message from the executive director

BY JAMES E. LUBIC, CMW21



This month I have several things to speak with you about. First of all, I would like to invite you to our Annual Convention and Educational Symposium. This year's event will take place in Vancouver, Washington, August 3-7, 2011. Many people have asked me, "What made you decide to go to Canada?" This is important:

It's not that Vancouver. This Vancouver is north of the Columbia River, which forms the southern border of Washington state and Portland, Oregon. Actually, you'll find the Portland International Airport is closer to Vancouver, Washington than it is to Portland, so if you're flying in, you'll be fairly close to our hotel.

Additionally, we have reorganized the daily schedule of events to focus more on our members' needs with a little less emphasis on the meetings. We will have numerous educational opportunities each day during the convention. These will include product demonstrations, best-practices seminars, and our traditional technical programs all day on Saturday. At your request, we have expanded the Vendor Fair to two days. The Vendor Fair will be open from 11:00 a.m. to 5:00 p.m. each day. You'll have plenty of time to shop for new tools and/or equipment. Sunday, the last day of the convention, we will close with our first annual Swap Meet. Everyone who registers can reserve one table with the price of admission. And as always, there will be no shortage of time to network with fellow members. I'm really excited about our new convention format, and I'm sure you'll find it's more enjoyable, too!

I hope everyone appreciates the new format for *Horological Times*. We've received many nice calls and e-mails from members telling us they like the direction of the magazine. We really appreciate the kudos. Just to remind you...we are continually looking for technical articles. Please take the time to share your experience, whether it's technical or business related. Or, you may have a particular repair or restoration, or a favorite tool or a helpful tip. We appreciate your articles and suggestions. If you're looking for a topic, you can refer to AWCI's Standards and Practices. We have two such documents: One is for the watchmaker, and the other is for the clockmaker. In these documents, you can read what a

professional watchmaker or clockmaker should be able to do. This is not a "how to"—the "how" to is up to you. These documents can be found on our website at: www.awci.com/services/certification.php. If you would like us to send you a copy via fax or mail, we're happy to help.

Students, please feel free to contribute here, as well. Let us know how your journey to becoming a professional is progressing. Or, tell us about a project you've undertaken. For some of us, it's been years since we attended school, and we're always interested in learning what's currently taking place.

We're hoping to see many of you soon at the upcoming convention in Vancouver, Washington!

AWCI's Fiscal Year End

AWCI's fiscal year end is June 30, 2011. Those parties who have provided goods and services to AWCI up to and including June 30, 2011 must submit those claims and invoices to AWCI no later than July 15, 2011. This includes chapter and individual expense reimbursement claims. Claims or invoices received after that date will be subject to additional review by our accounting firm. They are also subject to not being paid by AWCI. Thank you in advance for your consideration and attention to this matter.

AWCI new members

California

Mr. Patrick D. Davis-Borrego Springs, CA*

Colorado

Stephen F. Evans-Cordillera, CO

Florida

Terry Parresol-Mango, FL
Noime Ras-Naples, FL

Georgia

Michael W. Judy, CMW-Warner-Robins, GA*

Kansas

Donald Alcorn-Marion, KS

New York

Jason Deeb-Bellmore, NY

North Carolina

John Taylor-Greensboro, NC

Pennsylvania

Roman Mazur-Easton, PA*

Rhode Island

Richard M. Vandeputte-Saunders-town, RI

Texas

William Bishop-Waco, TX
Gene Galbraith-Austin, TX*

*AWCI welcomes back these individuals who have chosen to reinstate their membership.

2011 Convention & Educational Symposium



The Industry's Alive & Ticking!

Come see what it's all about...
August 3-7th, Vancouver, WA
(Near Portland, OR)

MORE WAYS TO GROW YOUR BUSINESS!

- What's New This Year:
- Expanded 5-Day Conference
 - Swap Meet--Open to the Public
 - Extended 2-Day Vendor Fair
 - Most Meals Included
-
- Exciting Offsite Events
 - "Plus-One" Activities for Spouses
 - Nightly Hospitality Suite
 - CEU Credits for Educational Symposium Classes

Early Bird Registration \$499

(register by 7/15/11 for discount)

Register Today at: www.awci.com/ces2011

Win a Set of Tourbillon Cufflinks!

You could soon be sporting these individually numbered, swiss-made yellow gold cufflinks from Totally Worth It. Plus... other exciting giveaways!



Gary G. Girdvainis, Keynote Speaker



Girdvainis has helped shape *International Wristwatch USA* since its inception in 1990. The magazine, now known as *iW*, has grown into the only U.S. monthly magazine covering watches. Hear his fascinating keynote speech, *Mechanical Watches in the Digital Age*.

Free Magazine Cover

Get Your Picture on the Cover of HT

We'll take your photo and place you on a customized cover of *Horological Times*. Get a free print to hang in your shop!

INTERESTED IN SHOWCASING YOUR PRODUCTS? ASK ABOUT OUR 2-DAY VENDOR FAIR!

2011 Convention & Educational Symposium

AWCI

HIGHLIGHTS OF DAILY EVENTS

August 3rd

- Affiliate Chapters** • Meet with local watchmakers and clockmakers
- Welcome Reception** • Connect with fellow horologists and industry members

August 4th

- Keynote Address** • Gary G. Girdvainis
Group Publisher, Fine Life Media and Editor-in-Chief, International Watch
- Product Demos** • Learn about new products and techniques
- Vendor Fair** • See what's new in the industry
- Board Meeting** • Members welcome (old business)

August 5th

- Best Practices InfoSessions** • Improve your business skills with sessions on marketing, business operations, computer technology and more
- Vendor Fair** • At your request: A second day to see all the industry has to offer!
- Dinner** • ELM Charitable Trust Fundraising Dinner
Sponsored by Jaeger-LeCoultre

August 6th

- Watchmaker Education** • Top 6 Techniques for the 21st Century Watchmaker
Tom Schomaker, CMW21
- Modern Methods to Locate Parts and Technical Information
Joe Schrader, CMW21
- Identifying Fake Luxury Watches
Charles Cleves, CMW21
- Clockmaker Education** • Repairing Fusee Clocks
Robert Ockenden, CMC
- Adjusting Clock Escapements
Jerry Faier, CMC21
- In-Home Clock Repairs
Michael Gainey, CC21
- Board Meeting** • Members welcome (new business)
- Awards Dinner** • Rolex AWCI ELM Trust Charitable Trust Awards Dinner
Sponsored by Rolex USA

August 7th

- Swap Meet** • Buy • Sell • Trade
Open to the Public
Includes free table to display timepieces, tools and parts with each registration



**More Days • More Events.
Come Join Us!**

**August 3-7th,
Vancouver, WA**

(Near Portland, OR.)

Welcome to Vancouver, Washington!

This year, AWCI's national convention will be held in the historic city of Vancouver, Washington. Vancouver was named after Captain George Vancouver in May 1792, and since that time, it's grown from a simple spot in the middle of nowhere to part of one of the largest metropolitan areas in the country. Located just across the banks of the Columbia River from downtown Portland, Oregon, Vancouver is both a thriving city of its own and part of the greater Portland, Oregon area.

Take in Some History

Pearson Field



One of the oldest continuously operating airfields in the United States, Pearson Field, served as the landing site for the first aerial crossing of the Columbia River, which was accomplished by dirigible in 1905. The first airplane landed at Pearson in 1911. Since that time, Pearson has seen an illustrious history of service as both a military airfield during both World Wars, and the landing site of the first non-stop transpolar flight in 1937. Today, Pearson Field is home to Pearson Air Museum, and the field is still used by pilots to land smaller planes. Pearson Field is located on Vancouver National Historic Reserve. Visit www.pearsonairmuseum.org for more information.

Fort Vancouver



Located at the heart of the Vancouver National Historic Reserve, Fort Vancouver was both the region's first military post and was once the administrative center and principal supply depot of the British Hudson's

Bay Company's "Columbia Department," connecting approximately two dozen posts in a vast fur trading network. Today, Fort Vancouver serves as both a premier archaeological site and a park with a water-

front trail and an environmental center. Learn more about Fort Vancouver at www.nps.gov/fova/index.htm.

Historic Neighborhoods

If a walking trip is more your style, take a short jaunt over to Portland, Oregon to stroll through some of the region's most historic neighborhoods, like Nob Hill and the Pearl District. A sister neighborhood to the original Nob Hill in San Francisco, Portland's Nob Hill neighborhood is home to narrow streets filled with elegant, turn-of-the-century Victorian homes and trendy boutiques and small shops. Once the decaying home of industrial warehouses, Portland's Pearl District now features boutiques, up-and-coming art galleries, and specialty retailers, like antique shops. For more information on Portland's many neighborhoods, check out the Portland Guide at www.portlandguide.com.



Pittock Mansion

Built in 1909, Pittock Mansion was home to two of Oregon's most noted historical figures, Henry Pittock and his wife, Georgiana. Most known for transforming the *Weekly Oregonian* newspaper into the daily *Oregonian* newspaper, which is still published today, Henry Pittock arrived in Portland in 1853, in his own words, "barefoot and penniless," and created an empire. His wife, Georgiana, was one of the original founders of the modern-day Portland Rose Festival. An Italianate structure that defies some of the architectural mores of the period, Pittock Mansion embodies the city's transition from a small town to a thriving city. Peruse the house and the antiques it holds, or take in one of the many special exhibits on display. Find out more about the Pittock Mansion at <http://pittockmansion.org>.



Enjoy the Arts

Esther Short Park

Established in 1853, Esther Short Park now serves as the city of Vancouver, Washington's town square and is located

directly across the street from the Vancouver Hilton. Head to the square to listen to the bell tower and glockenspiel ring and play, or take in some music at either the Noon Concert or the Six-to-Sunset Concert on the weekend. The local green space, Esther Short Park, also offers a grassy, green location for an impromptu picnic. Discover more about Esther Short Park at www.cityofvancouver.us/parks-recreation/parks_trails/parks/esthershort.asp.

Portland Art Museum



The oldest museum in the Pacific Northwest, the Portland Art Museum was established in 1892 and is the seventh oldest museum in the United States. Internationally recognized and distinguished for its art of native peoples of North America, English silver, and the graphic arts, the Portland Art Museum's permanent collection consists of more than 42,000 objects, including works by Van Gogh, Weir, Hassam, Avery and Hartley. For more on the Portland Art Museum, visit their website at www.portlandartmuseum.org.

For more on the Portland Art Museum, visit their website at www.portlandartmuseum.org.

Museum of Contemporary Craft

The oldest continuously-running craft institution in the United States, the Museum of Contemporary Craft was founded in 1937 as the Oregon Ceramic Studio. Located in the Pearl District, the Museum of Contemporary Craft features some of the leading international and national artists working in glass, metal, wood, ceramics, fiber and mixed media. To find out more about the museum, go to www.museumofcontemporarycraft.org.

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Welcome to Vancouver, Washington!

See the Great Outdoors

Portland Japanese Garden



Experience nature and discover a sense of peace, harmony and tranquility in the Portland Japanese Garden. Comprised of 5.5 acres, the Portland Japanese Garden features 5 distinct

gardens: the flat garden, the strolling pond garden, the tea garden, the natural garden and the sand and stone garden. Each garden is influenced by Shinto, Buddhist and Taoist philosophies and is designed in such a manner that you're meant to always feel a part of the environment around you. Visit www.japanesegarden.com for more information.

Mount St. Helens



If you're going to be in the area a few extra days or you've scheduled time for a day trip, travel to Mount St. Helens National Volcanic Monument. Located approximately 50

miles north of Portland, Oregon, Mount Saint Helens erupted on May 18, 1980 at 8:32 a.m., collapsing part of the mountain and scorching about 230 square miles of surrounding forest. Today, Mount Saint Helens is one of the premier attractions located in Gifford Pinchot National Forest. Learn more about Mount Saint Helens at www.fs.usda.gov/mountsthelens.

Crater Lake



Taking a trip up the coast? Stop at Crater Lake. Located approximately 250 miles from Portland, the deep blue waters of Crater Lake are surround-

ed by sheer cliffs that reach almost 2000 feet high. Two small islands sit in the center of the lake. You can schedule a tour by boat or on foot around the park or across the lake during the summer months. For more information, check out the National Park Service website on Crater Lake at www.nps.gov/crla/index.htm.

Columbia River Gorge

Once you get outside the Portland or Vancouver area, the Columbia River Gorge surrounds the Columbia River, stretching the length of most of the river's 1200 miles. Drive through the scenic region, take a hike, or visit one of the area's noted waterfalls, such as the Multnomah Falls. Learn more about the Columbia



River Gorge National Scenic Area at www.crgva.org.

Mount Hood National Forest



If climbing, hiking or skiing is more your style, take a trip to the Mount Hood National Forest. Located approximately 20 miles east of Portland, Oregon, Mount Hood Na-

tional Forest is home to one of the most climbable glaciated peaks in North America—Mount Hood. Explore the lakes, streams and forested mountains of the area, or step into a pair of hiking boots and take a trip up the mountain. For more information on the Mount Hood National Forest and Mount Hood, visit www.fs.usda.gov/mthood.

Grab a Bite

Vancouver Farmers Market

If breakfast or lunch in a restaurant isn't your style or you like your food local and fresh, take a stroll over to the Vancouver Farmers Market at Esther Short

Welcome to Vancouver, Washington!



Park. Grab a bite to eat, pick up some fresh berries or just sit down on the grass to take in the music. To find out more about the Vancouver Farmers Market, check out www.vancouverfarmersmarket.com.

The Grant House

Winner of OpenTable.com's Diners' Choice Award for 2011, The Grant is nestled on Officers Row in Vancouver's National Historic Reserve. Try a fish dish for lunch or dinner, or go vegetarian with the asparagus ravioli. The Grant House also offers an extensive list of wine and spirits. To reserve a table, go to <http://thegranthouse.us>.

Tommy O's Pacific Rim Bistro

For a taste of true Pacific Rim cuisine, stop by Tommy O's Pacific Rim Bistro. Located on Washington Street in downtown Vancouver, Tommy O's specializes in the flavors of the "Ring of Fire." Unique specials change daily. Tommy O's uses organic, locally sourced food in all of their dishes. To see the menu, visit www.tommyosaloha.com.

The Farm Café

With thumbs-up mentions in national magazines, like Travel and Leisure, and international institutions, like the UK's Guardian, The Farm Café is one of the restaurants to visit in the greater Portland area. Known for its romantic and homey ambience, the Café offers a wide array of dishes from Herb Crusted Tofu to Blackened Coho Salmon. Find out more about the restaurant and take a peek at the menu at www.thefarmcafe.com.

Interesting Facts About Vancouver, Washington

- Vancouver is the oldest non-native settlement in the Pacific Northwest.
- During their trip west, the Lewis and Clark Expedition stopped in Vancouver.
- Vancouver is home to the oldest public square in the Pacific Northwest, Esther Short Park.
- Notable historic greats, like General Ulysses S. Grant, General George McClellan and General George C. Marshall, all served at the Fort Vancouver barracks.

Getting Around Portland and Vancouver

Walk It

Our convention hotel, the Hilton Vancouver, is located directly across from Esther Short Park. Many other activities and restaurants, such as Tommy O's are also located within walking distance.

Take the Train

The convention hotel, the Hilton Vancouver is just minutes away from the local Amtrak station. A train trip into Portland takes less than a half hour.

Go by Bus

The city of Vancouver features a convenient bus service throughout the city.



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HOROLOGICAL TIMES?

Guidelines for Contributing Authors

Horological Times

The *Horological Times* (HT) print magazine is a unique publication. It is written predominantly for members by members. The magazine strives to provide technical and horology-related information that is important to the watch and clock repair business. HT is mailed monthly to members, libraries and the industry. There may also be additional digital distribution on www.awci.com or the AWCI Facebook page.

Compensation

We are a not-for-profit trade association. However, a small Appreciation Fee can be paid for published articles based upon length, technical content and artwork. This Appreciation Fee ranges from \$50 to \$200 per article.

Review

The HT Committee reviews articles submitted for publication to ensure they meet the technical and editorial specifications of the magazine. The review committee is comprised of AWCI members who are active in the field of horology and have extensive knowledge in watch repair, clock repair and related fields. Occasionally, articles are submitted which cannot be published. In those cases, we acknowledge receipt and give the writer specific reasons for declining the article in hopes that the writer will take our comments and revise the article to meet the specifications of the magazine.

How to Submit Articles

We prefer that articles be submitted via e-mail. Text can be accepted in Microsoft Word or other text-based format. We request high-resolution digital photos and illustrations for printing at 300 dpi. We prefer that each digital file be at least 2 mg in file size. We can accept files in .tif, .gif, .jpg, .pdf and other formats, but we cannot accept visuals in Word or .rtf formats. High-quality visuals may also be mailed as original art to be scanned, although e-mail transmission of digital files is preferred.

Contact: Please contact the Editor for more information or to send a proposed article:

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Stock No.	Size
234.220	Small
234.221	Medium
234.222	Large



\$ 3.00 per Dozen
\$19.80 per Gross

Epi-Kote

Epi-Kote is a surface treatment used to prevent the spreading of oils to unwanted areas. It can be used for the pre-treating of pallets and escape wheels or for the treatment of the automatic bridge and/or the auto-reversing wheel. Epi-Kote is available in a variety of quantities to better suit your work habits and to increase effective life of the product.



Stock No.	Size	Price
421.550	100ml	\$79.95
421.551	50ml	\$49.95
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BY JACK KURDZIONAK, CW21



BASELWORLD 2011 IMPRESSIONS, PART 1

My colleague, Bob, and I left from Boston's Logan Airport just before midnight on a Tuesday evening in late March. It was our annual excursion

to Switzerland to visit Baselworld, the world watch and jewelry fair. This annual exposition has been held in Basel, Switzerland for decades, and every year it grows in scope and opulence—along with an ever-increasing number of visitors from all over the world. Upon departing Boston on the same Swiss flight we have taken for the past sixteen years, it was immediately apparent that this year was different from past years.

For the first time in our collective memory, there were no American, watch-related sales representatives we recognized on the plane. In past years, we had always met representatives who lived or worked in the New England area who were on their way to participate in the fair.

After landing in Zurich, we began our fifty-minute drive to Kappel, a suburb of Basel, where our hotel host, Peter Weber, was awaiting our arrival. Our rooms were ready, and we napped a bit before heading to Basel to register for the fair.



Mall in front of Basel Fair.

For some reason I have never understood, the weather in Basel, Switzerland during the fair is usually cooperative and very spring-like. Basel is actually further north than Boston. Yet the weather is invariably better than Boston's, and spring seems to arrive in Basel several weeks sooner than it does at home. Take a look at the photo taken from my hotel room on the afternoon of March 25, and notice the green landscape of a place that is almost as far north as International Falls, Minnesota and at the same elevation (approximately 1,250 ft). Although I have never been to International Falls, I understand it's known as the icebox of the U.S., and their springtime is brief and may begin as late as Memorial Day. Why Switzerland should have such lovely weather in March is beyond what I can explain, but it is a nice change and a pleasant place to visit.



Switzerland awakens to spring.

On Wednesday evening before the Fair opened to the public, we attended a reception for journalists. This well-attended reception had visitors from all over the world, and, fortunately for us, many of them spoke English. In fact, the welcoming introduction was given by a Swiss-German speaker in very fluent English. After he delivered the welcome, I privately asked him why he spoke in English rather than his native Swiss German. He politely explained that if he spoke in German or his second language, French, he would not be understood by the majority of the guests at the reception. He further explained that English is the Lingua Franca of Baselworld; hence, much of the business at Baselworld is transacted in English. As an American in a foreign country, my ear is constantly listening for a conversation in English, and there was plenty spoken at that reception. People from all over the world were conversing in Eng-

from the workshop

BY JACK KURDZIONAK, CW21



Ball Watch Co. exhibit space.

lish regardless of their national origin. Asians, Africans, Europeans, Australians, etc.—all spoke English. What was lacking was anyone other than Bob and I who spoke the American dialect.

Baselworld opened on a brilliant Thursday morning to a throng of visitors, as shown in the photo taken in front of the main fair building, and we began our five-day whirlwind visits to watch companies, tool companies and spare part suppliers. Almost all of these visits were scheduled before we left the U.S. Because Baselworld exhibitors pay an enormous sum to rent a booth for the week, they work very hard to make the most productive use of the time they spend there. Although I have no exact figures, I have heard from a few exhibitors that the small booths, less than 100 square feet and generally not in the most desirable location, cost upwards of \$25,000 for the week. I would not be surprised if the large, opulent booths in the best locations cost each company several millions of dollars to display their products for the week.

Attendance at Baselworld peaked in 2008 at 107,000 visitors just before the worldwide business recession significantly slowed business in general. Since its low point in 2009, attendance has been recovering, and 2011's attendance is second only to the record-setting 2008. What has changed noticeably is American attendance at the fair. In the past, an American could walk around the fair and frequently hear the American dialect being spoken by people walking around, sitting down at a restaurant for lunch, or relaxing at a bar. This has not been so for the past few years. American buyers at Baselworld seem to be qualifying as an endangered species. It is readily apparent to a Baselworld visitor that buying power has shifted east

to the Middle East, Russia, and Asia, as well as south to Africa. As mentioned in this column a few months ago, the American dollar no longer commands as much respect when compared with other world currencies. In just the past few months, the dollar has continued its steady decline against the Swiss Franc. When compared to the time of Baselworld 2010, the American dollar is down over 30%. It is therefore no surprise so little American English was heard at Basel this year. The U.S. dollar no longer buys as much in Switzerland as it did in past years.

Bob and I work the fair as a team with two distinct specialties. Bob focuses upon new watch products. He looks for new watch features and styles that would make a good addition to the products we stock in our shop. On the other hand, I am always seeking out new watch technologies and quality suppliers of tools and spare parts. More about Baselworld will follow next month. ♦



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PROMOTION 29

How does **AWCI** advance the art and science of horology?



Amy Dunn

This is a reprint from a recent article in *Watch Around* magazine on AWCI.

AWCI, or the American Watchmakers-Clockmakers Institute, is the U.S. trade association for watch and clock repair professionals.

To give you a better idea of what we do, some of the most prominent AWCI services are highlighted below.

AWCI National Referral Directory of Watch and Clock Repair Services

The watch and clock industry is definitely alive and ticking, and consumers are actively looking for retailers and repair services for their prized timepieces. The AWCI online Referral Directory at www.AWCI.com makes finding that local repair professional easy. No other entity in the United States provides this type of directory for the industry.

AWCI Training and Certification

AWCI's role is to "set the standard of excellence to be applied to the quality of instruction for both the restoration and repair practices that are taught worldwide." AWCI sets the standards for the industry, conducts training to meet these standards, then provides certification for those who qualify.

Certification is a specific assessment conducted by AWCI for watch and clock repair professionals. Consumers want to be assured the person handling their prized Rolex, Cartier or Omega watch – or their vintage clock – actually knows their stuff and can provide the right parts. To achieve certification, watchmakers go through a grueling four-day repair test. Additionally, they must keep up their certification through continuing education. Professionals who have earned certification have the title of CW21 (for a watchmaker) or CC21 (for a clockmaker).

Industry Communications

The trade association also promotes an ongoing dialogue on industry news and technical information. The variety of communications tools AWCI is responsible for includes:

- *Horological Times* – a monthly magazine for members on news, technical issues and business subjects
- The *Technical Discussion, Spare Parts & Tools* website forum
- The www.AWCI.com website with up-to-date industry information and the Referral Directory

An AWCI Snapshot

WHO: American Watchmakers-Clockmakers Institute

WHAT: U.S. trade association for timepiece repair professionals

WHEN: Serving the horology profession since 1960

WHERE: 701 Enterprise Dr., Harrison, OH 45030, 866-367-2924, www.AWCI.com

WHY: Join for \$137 per year to receive magazine, group benefits, business leads, networking opportunities, and to advance the art and science of horology.

- Publication and sales of books and DVDs on industry topics
- The Henry B. Fried Resource Library

In addition to all of this, the organization operates the Orville R. Hagans History of Time museum near Cincinnati, Ohio.

Why Should You Become an AWCI Member?

First off, AWCI members receive the monthly magazine, free business leads through the Referral Directory and numerous discounts on business services such as shipping and office supplies plus discounted health insurance. Secondly, there are many opportunities to network and advance your business through AWCI courses, conventions and meetings.

Lastly, our members are the most dedicated group of professionals you'd ever want to meet. According to a recent article in *WatchTime* magazine, watch and clockmakers, "...are mavericks – rugged individualists and gifted mechanics, who are hopeless romantics about horology." They work long hours at an exacting profession in the pursuit of perfection. It seems they live every day hoping that the next difficult repair job will be a unique challenge. Honestly, these are the kind of people you'll feel privileged to know.

Anyone can join and annual membership is just \$137. Whether you're an enthusiast or a professional, AWCI not only provides a wealth of benefits, it gives you the opportunity to play a role in the advancement of horology.

Amy Dunn is the Marketing Director for AWCI and Editor of Horological Times.

Winding Intermediate Wheel Post Repair, Part 2

BY DALE LADUE, CMW21

The repair piece was pressed in place, as shown in Figure 1. Approximately one-half the thickness filled the wear groove allowing for metal to be turned down to the proper diameter. Before the excess metal can be removed, the repair piece was secured by sweat soldering it in place. Small shavings of 2% silver solder were applied with a small amount of flux. The bridge was then held over a flame, until the solder flowed (Figure 2).



Figure 1- The repair piece fit snugly in the groove.

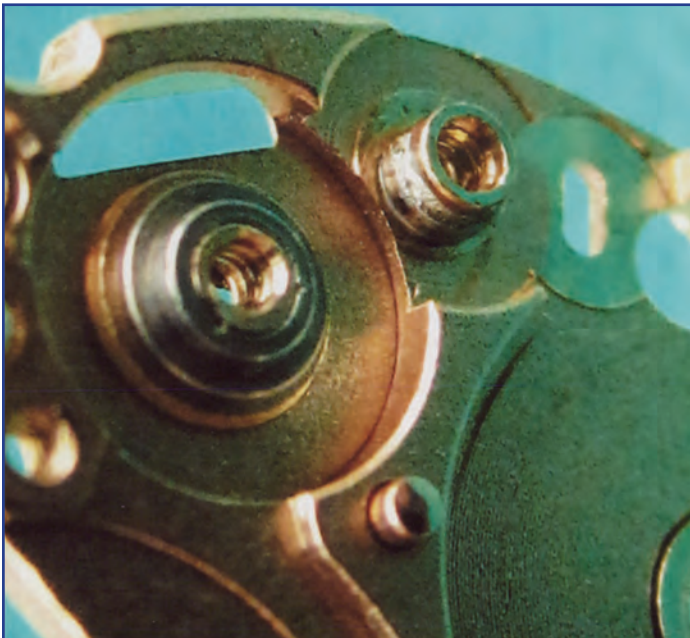


Figure 2- The repair piece permanently in place.

The bridge was mounted in a face plate, as shown in Figure 3. A pump center that is integral with the face plate was utilized to approximate the centering of the worn post, as shown through the face plate inspection hole in Figure 4.

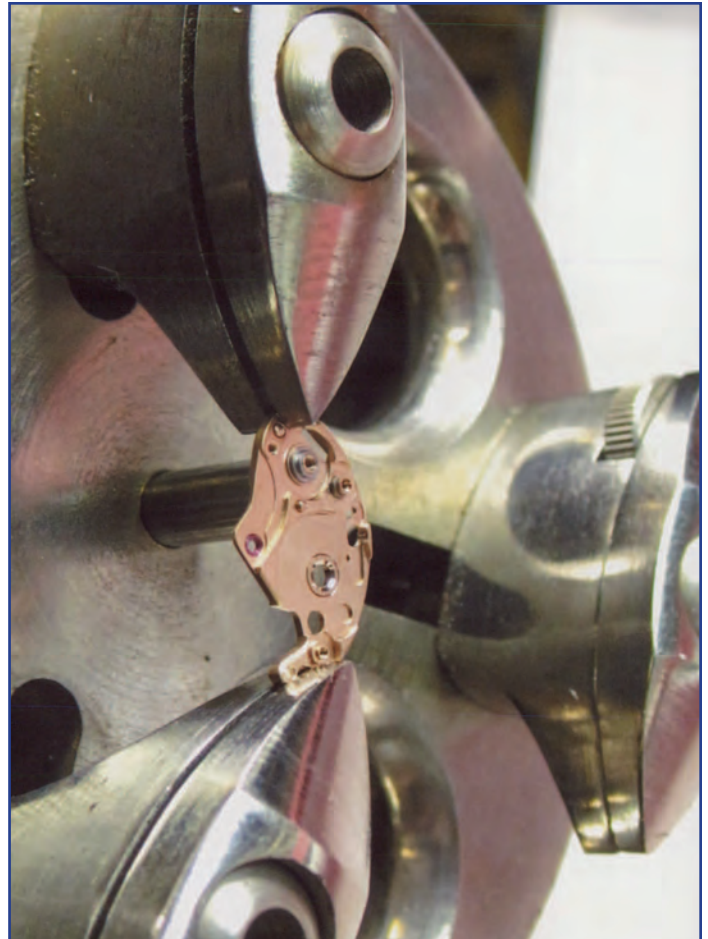


Figure 3- A face plate pump center was utilized to center the post.

The pump center was retracted from the rear post hole, and a pointed wobble stick was inserted in the top side post hole (Figure 5). The pointed end of the stick is approximately 1-inch from its pivot point in the fixture and around 2-inches from the pivot point to its opposite end. The long end culminates at a millimeter scale. The complete set-up is shown in Figure 6. As the lathe is slowly turned, the long end of the stick oscillates between the scale marks, if the post is not true. A gentle tap on a wood dowel with a small bench hammer will move the bridge in the jaws. When the point of the stick drops to its lowest point, the post hole is high off-center and needs to be nudged down in the face plate jaws. This process usually needs to be repeated a few times until the stick point remains steady, while the lathe is turned. You have to remember that the movement you have at the gage end of the stick is amplified, in this case, approximately seven times the movement of the post hole.

Winding Intermediate Wheel Post Repair, Part 2

BY DALE LADUE, CMW21



Figure 4- The face plate pump center was used to initially locate the post on center.

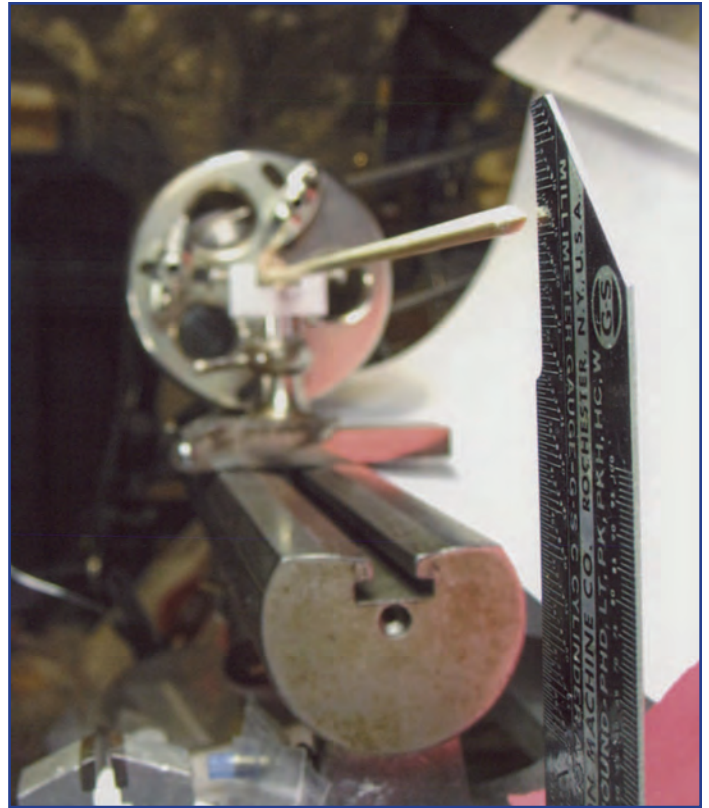


Figure 6- The point would indicate about a seven-to-one ratio of wobble.

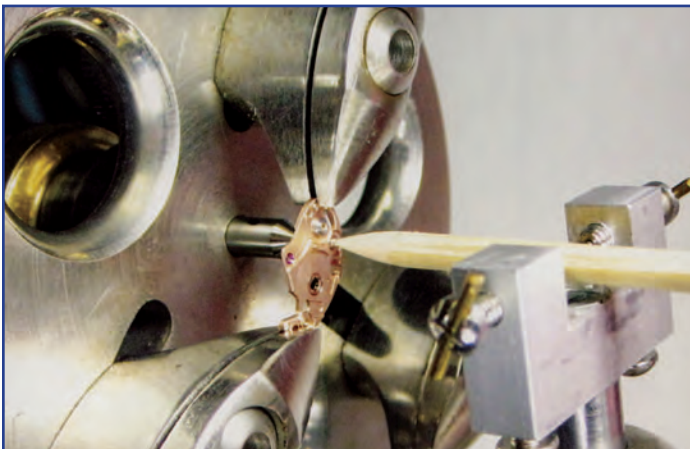


Figure 5- A wobble stick was used to perfectly align the post to center.

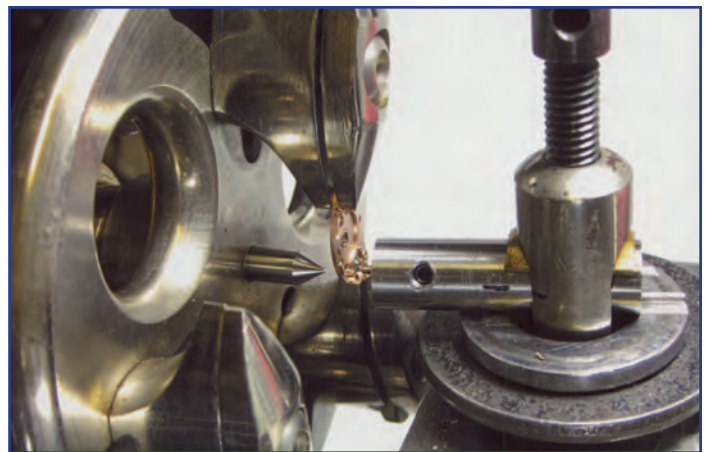


Figure 7- A cutter was mounted in a slide table rest.

A slide rest with a small carbide cutter was utilized to turn the excess metal away, as shown in Figure 7. The cutter was carefully brought to the surface of the repair piece, as the close view in Figure 8 shows. The surface was carefully turned away, creating fine shavings (Figure 9). The progress was checked by clearing the shavings and inspecting frequently (Figure 10).

The finished post is shown in Figure 11, and the repair appears virtually undetectable. The intermediate wheel's inside diameter was polished on a wood stick that was charged with diamontine powder and spun in the lathe (Figure 12). The wheel is shown in Figure 13 returned to its original orientation for proper depthing. A set of these photos was given to the client along with the knowledge of the importance of proper regular servicing. ♦

Winding Intermediate Wheel Post Repair, Part 2

BY DALE LADUE, CMW21

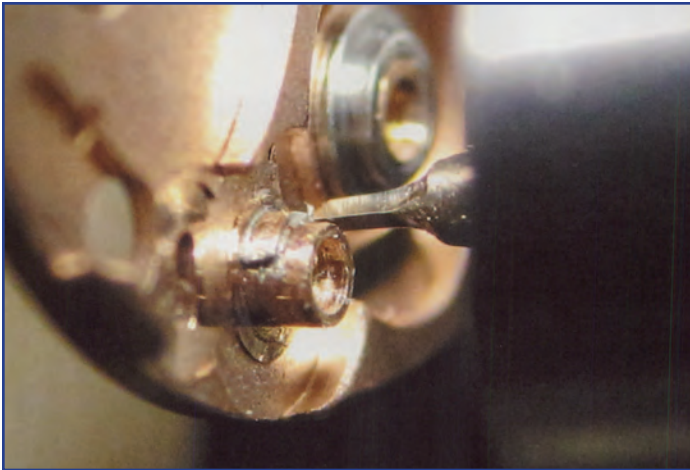


Figure 8- A close view of the cutter alignment.

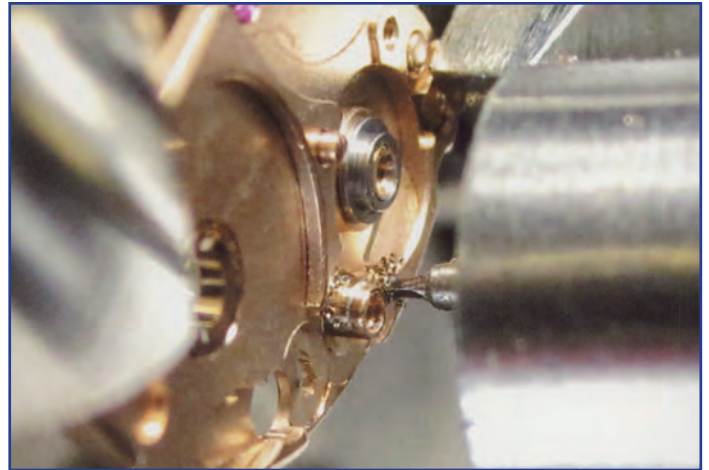


Figure 9- The lathe head was turned slowly and light cuts were taken.

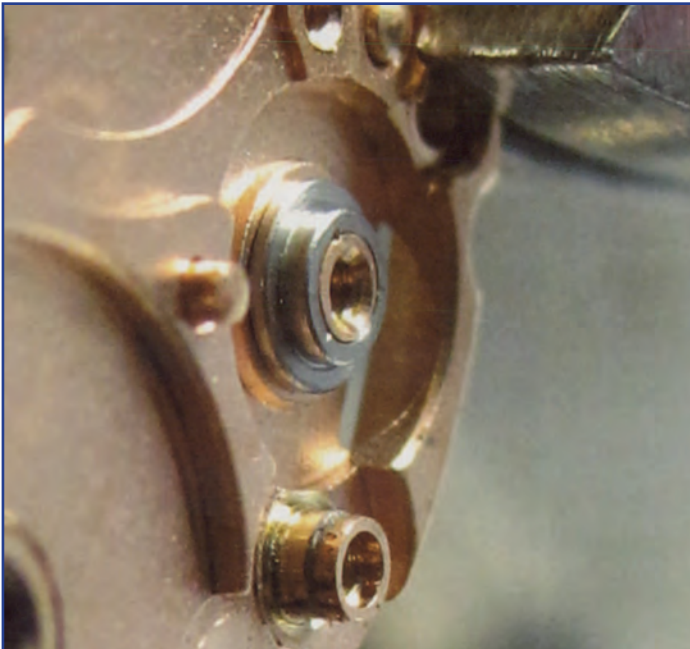


Figure 10- Chips were removed and post was checked frequently.



Figure 11- The fully restored post.



Figure 13- The wheel and post were returned to their original positions.



Figure 12- The inside diameter of the intermediate wheel was polished with diamantine.

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Repairing a Marriage: Restoring the Long Case Clock

BY LAURIE PENMAN

I suppose that the long case clock suffers more from bad “marriages” than any other clock. It comes apart easily for transport in a car or box. That makes it easy for a movement, dial and pendulum to become separated into many pieces after moving to a new home or a dealer’s store room. Stock moves about in store rooms. Pieces hide or get damaged. Eventually a whole clock might be made up of parts that have only a vague relationship to each other, and they often need modification to give them a semblance of being “siblings.”



Figure 1

To marry a movement to an unrelated dial, a round file should be used to reshape and move the holes (the rougher the file, the better). This ensures the pipes for the hands will go through the dial at the same time the winding holes expose the winding squares sufficiently for the key to be used. Figure 1 shows just such a dial. The pipes are centered, but the winding holes have been filed crudely so that the squares on the arbors can be used. In fact, they had not been enlarged quite enough for the winder to rotate without rubbing noisily on the dial.

The rest of the clock was not obviously a marriage. My customer needed the brass dial to be made “legitimate,” so that from the outside, at least, it did not shout out its mixed history. It was a nice dial with turned surrounds to the winding holes, and I decided to insert new, slightly enlarged turnings on the proper centers. I did not have a milling machine at the time, so I used my bench driller. After marking circles centered on the winding arbors with a fiber pen, I used an end mill to progressively remove the old turnings (Figures 2 & 3).

The next two figures show the progression on left winding (Figure 4) and the right (Figure 5). The lat-



Figure 2



Figure 3



Figure 4

ter shows the marking more clearly and just how much it had to veer away from the existing turning. In Figure 6, the last cut is being made and will leave sufficient metal for the next operation, without requiring heavy cuts from the boring tool (My driller is not as sturdy as a milling machine would be.)

Repairing a Marriage: Restoring the Long Case Clock

BY LAURIE PENMAN



Figure 5



Figure 8



Figure 6



Figure 9

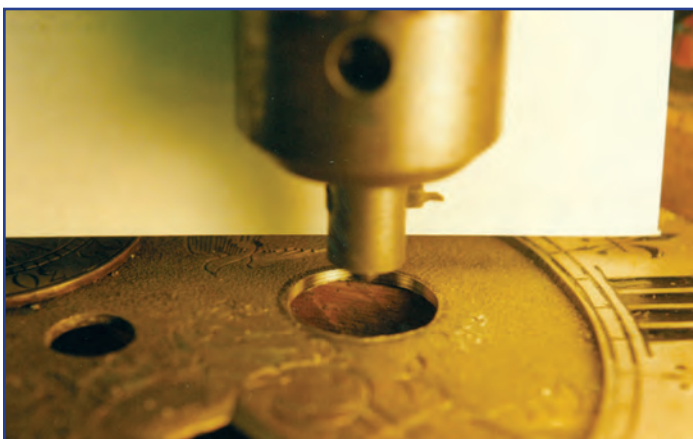


Figure 7

The table of my drilling machine had a central hole which had been machined to a parallel bore, as can be seen from Figure 7. So, I was able to fit a headed brass bush. A headed bush is a cylinder with two diameters. The smaller one fits the hole that the bush sits in and the larger (which is usually much shorter)

prevents the bush slipping through the hole. The bush is needed to provide a bearing for the lower end of the boring tool; the quill or spindle of a small drilling machine is not sturdy enough to employ an unsupported tool.

Then, after locking the table, I used a center drill, twist drill and reamer to make a hole to act as a bearing for the tool shown on the right of the drawing. The driller can now be used as a vertical borer. The cutter was made from High Speed Steel (HSS), and I did not fit a screw adjustment to it, just a locking screw. Adjustments to the diameter being cut were made by loosening the screw and tapping the HSS bit to a position gauged with a 2" micrometer. Figure 8 shows the cutter in use and Figure 9 shows the finished hole. The timber support can just be seen through the hole. I had placed it as close to the hole as possible to prevent the dial from vibrating. Next month, I will show the making of the inserts and the finished holes. ♦

Tool Tips: A Sensitive Issue

BY MANUEL YAZIJIAN, CMW21

Keep Your Fingers Safe by Using Gloves

Quite often, we hear how a surgeon's hands and fingers are one of his or her most important assets. As watchmakers involved in the field of watch repair, we too must understand and appreciate the importance of keeping our hands in good condition.

Working on watch movements is a very delicate task. The fine and delicate tools we use, such as tweezers and oilers, become an extension of our fingers. Keeping the tips of our fingers in good condition is crucial to maintaining their sensitivity and ultimately helping us achieve superior performance.

One of the many challenges of the independent watchmaker who does both movement repair and case and bracelet refinishing is maintaining his or her fingers during the polishing process. Sadly, this aspect is quite often neglected in many instructional arenas.

In this issue, I would like to share with you the usage of breathable, nitrile-coated gloves. These gloves provide great dexterity and do not feel cumbersome when worn. I find they do a great job protecting my fingers when polishing cases and bracelets. In addition to wearing these gloves, using a leather pad to hold the case or bracelet to minimize heat transfer is still recommended.



While there are many brands of polishing gloves and price ranges, the ones I found that fit my hands the best and do not feel too bulky are the nitrile-dipped multipurpose gloves.

- Product - Nitrile-dipped multipurpose gloves
- Brand - West Chester
- Manufacturer model & part # -37120/L5P
- Available online and at most hardware and home improvement stores
- Quantity - pack of 5
- Glove size - Large
- Typical Price - \$5.00 (\$1 per pair of gloves)
- Contains latex - No
- Non-slip grip - Yes
- Heat resistant - No
- Insulated - No
- Lined - No
- Spandex/Stretchable - Yes
- ANSI Certified - No
- Water Resistant - Yes

When I have not used gloves during polishing, I have found I spend a considerable amount of time cleaning and brushing my fingers and fingernails afterward. Not only is this a waste of time, but it also leads to unsightly fingers and a reduction in their overall sensitivity.

I hope you too can benefit from using these gloves— I know I won't go back to doing things the old way. ♦

Be safe.

Manuel Yazijian

Tool Tips: A Sensitive Issue

BY MANUEL YAZIJIAN, CMW21



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An Introduction BY JERRY FAIER, CMC21



J. M. Huckabee

It's always good to have a resource to look back at or study when we meet a bench challenge. The excellent series of articles and books written by J.M. Huckabee offer such an option. That's why we thought it would be a good idea to reprise the "best-of-the-best" from Huckabee in *Horological Times*. This short, but valuable technique shown below will be

the first of many insightful article reprints to come. In addition to thanking Mr. Huckabee for producing such a fine body of work, we would also like to thank Charles Salomon, a life member of AWCI. His suggestions and assistance in locating and selecting relevant articles was invaluable.

From an educational standpoint, in conversations with many of you about the use of the Clockmaker's Standards and Practices document, it seems it might sometimes be hard to relate the S&Ps to what you do at the bench. However, this Huckabee technique is an excellent example. The S&P section on "General Movement Servicing" discusses the 26 Steps to be taken during the restoration of any clock movement. This list is a guide to help you, the bench professional, cover all your steps so nothing is missed or forgotten. In a real-world situation, this month's article by Huckabee, showing a simple way to deal

with wheel truth, directly relates to the Clock S&P (see pages 19-25). Mr. Huckabee shows what Steps 3 and 7 refer to and how to go about the task of correcting these types of problems. Remember, if a wheel does not turn true, it will wear the ogive of some teeth creating additional drag within the train. It also has a tendency to add to the cutting force against the mating pinion leaves as a result of that edge coming in contact, rather than the flank of the tooth. This also is something unwanted in a proper running train.

And don't forget about the new bushing you want to put in—if there is wobble, there will be accelerated wear there, as well. You will have to increase the ID of the hole to allow for this, and that cuts down on the life of the bearing. This is even more noticeable with wobbling escape wheels where the action may cause a variation in the force delivered to the pallets and result in uneven timing. You'll find Mr. Huckabee's ideas are so simple, and yet so useful, that even if your tooling expertise is limited, they may help stimulate ideas for adapting the tooling you do have to achieve the same solutions. (For example, I made a holder for a sharp pointed piece of hardened drill rod that sits in my "T" rest. It serves the same purpose as his vise idea, but is more convenient for my work area.) Just remember, in a professional shop, there is no excuse to let a movement go out with "wobbling wheels!"

From: *The Top 300 Trade Secrets of a Master Clockmaker*

By J. M. Huckabee, CMC, FAWI, FBHI



Figure 1

Place the wheel in a depthing tool or between centers in a lathe. Be sure it is resting on the arbor shoulder cones. Give it a spin to check run-out in round.

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STRAIGHTEN THAT WHEEL WOBBLE

BY J. M. HUCKABEE, CMC, FAWI, FBHI

Don't work on the wobble until the wheel is first round. Straighten the arbor, remount the wheel, or whatever is needed to get it true.



Figure 2

Devise some form of pointer and mark the wheel where its maximum error is located, both in plus (+) and minus (-) error. Pivots should be snug in the depthing tool centers.

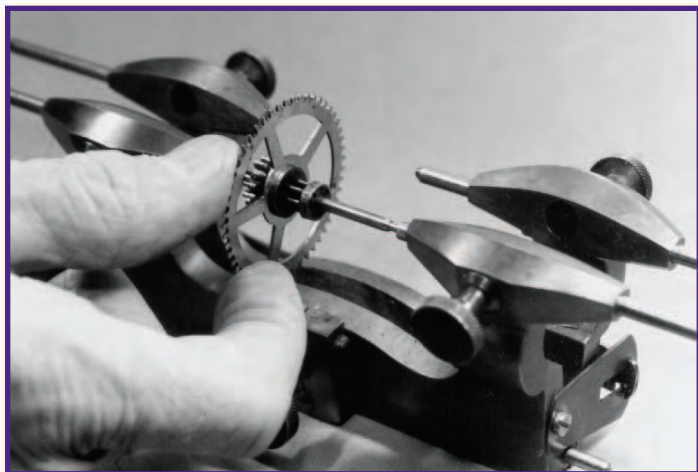


Figure 3

I use a mixture of two tricks: "a twist and a pinch." The twist is used on an error that needs plus (+) and minus (-) direction. This illustration shows the "twist."



Figure 4

Here is the "pinch": I like to do this in a depthing tool because I can exchange ends and the same pinch works in the opposite direction. In the lathe I use a left-and right- handed pinch. (However, my left hand is not as nimble as the right.)

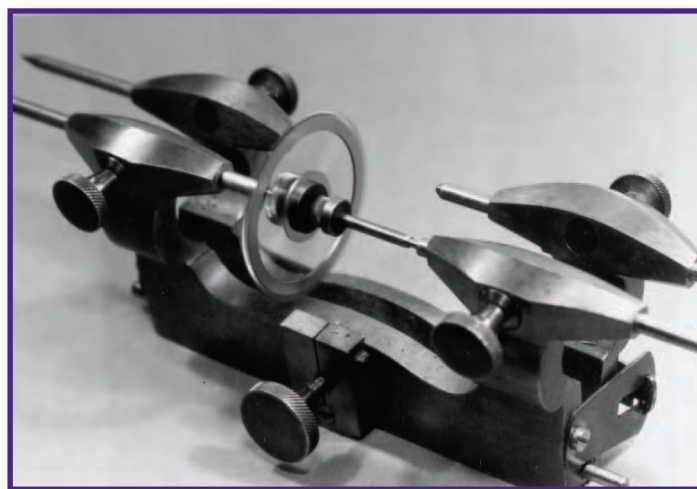



Figure 5

Slack the depthing tool runners slightly and give the wheel a spin. It only takes a minute or so to tame a wheel that wobbles. ♦

Help The Environment. Help The Elm Trust.

Watch Battery Buyers has offered to donate the funds from your recycled batteries to the Education, Library & Museum (ELM) Trust. This trust is our 501(c) 3 not-for-profit organization that supports the advancement of horology. For every donation of batteries to AWCI's ELM Trust Battery Program, you'll receive a letter of acknowledgement from AWCI which can be used for tax purposes.



The company has created this program specifically for AWCI and its members. Their services have no fees attached and the shipping of your spent silver oxide batteries is free. This makes it exceptionally easy to recycle your spent batteries. Even the non-value batteries you send will be efficiently sorted and properly recycled.

Did you know there are literally hundreds of millions of batteries produced each year? This consumes natural resources and adds toxicity and waste to the environment. Through this helpful program Watch Battery Buyers gives you an easy, effective way to Reduce, Reuse, and Recycle.

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HOW TO DONATE YOUR BATTERIES TO AWCI'S ELM TRUST BATTERY PROGRAM:



1. **Gather old batteries.**
2. **Contact Watch Battery Buyers for FREE secured shipping and & pick up.**
3. **You'll receive a letter confirming the weight and value, and you'll be asked the amount you'd like to donate to the ELM Trust.**

AWCI will then send a letter acknowledging this donation for your tax purposes.

You can choose to donate all or a portion of your payout to the ELM trust.

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AWCI: Advancing the Art, Science & Business of Horology

BY DAVID CHRISTIANSON, CMW21, FAWI

QUESTION:

Can you shed some light on the enclosed pictures of my friend's repeater? It's 14k gold.

Martin Charlop
LaGrangeville, New York

ANSWER:

Your minute repeater with calendar (in French) and moon phase indications is a high quality watch and was initially made by LeCoultre & Co., either as an ebauche for a watch finisher or as a finished movement for a wholesaler or retailer of watches. The fact that there is no name on the dial leads me to think it was made as a finished movement for a wholesaler or retailer. Signed watches with the LeCoultre name may bring more money on the watch market, but unsigned movements have the same quality grade as the LeCoultre-signed movements. LeCoultre made movements for Vacheron & Constantin, Patek Philippe & Co., Omega, Longines and many more. Sometimes, but not always, movements intended for others have the initials L.C. & Co. under the hammers.

Your case engraving pretty well dates the watch as 1890.



Send your Questions to *Horological Times*
701 Enterprise Drive • Harrison, OH 45030
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BY DAVID CHRISTIANSON, CMW21, FAWI

QUESTION:

Can you tell us more about this clock? The following is the name, year and number inside the movement:

Medaille D'Arg Ent Vincetti 1855 3754 4 8

Elena Delman
Cranston, Rhode Island

ANSWER:

It is difficult to tell from your photographs, but it looks like the pendulum suspension was of the kind that was patented by Thieble of Paris in 1865. The movement itself has all the characteristics of a French-made movement of the mid-to-late 19th century. It is an hour and half-hour bell strike and the stamp on the back plate tells us that the maker (not this particular clock) was awarded a gold medal at the Vincetti watch and clock fair in 1855. The solid bronze case is of the Napoleon III style which falls within the period of 1830 to 1870.



Insights: The Industry Advisory Board

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"It is a distinct honor to be a member of the Industry Advisory Board for the American Watchmakers-Clockmakers Institute. AWCI is a vital organization and is deeply committed to preserving and promoting excellence across our industry. As one of the oldest clock manufacturers in the country, Chelsea Clock shares this profound dedication to quality and craftsmanship, and is proud to partner with AWCI in ensuring the preservation and evolution of these standards."

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Vertical Coupling Clutch Class

BY MATT HRITZ, CW21, FWCA EDUCATION CHAIRMAN

Chronograph Class, St. Petersburg, FL-Feb. 24, 25, & 26

Several years ago, I had the misfortune of trying to service an Omega with a modular chronograph without proper training. I had never seen one, but with the confidence that usually goes with ignorance, I said, "Hey, how much trouble can it be? It's just a chronograph, right?" I think I got it straightened out after the customer's third trip to the shop. I say, "I think," because he didn't come back a fourth time, but then again, would you? I was sorry I had ever seen that watch. In the subsequent years, I have turned down several of these jobs, vowing not to try to learn on someone else's watch. The Technical Communication for this module, which is about 30 to 40 pages depending on who supplies it, is very detailed. However, there are few subtle things that just don't translate well on paper. It's important to note, this chronograph module has a vertical coupling clutch, and the whole thing bolts onto a base caliber, such as an ETA 2890, like the one in the Omega that I had "serviced."

Now, fast-forward to this past February. A long-time customer brought in an Omega chronograph for service. With a smirk on my face and rubbing my hands together, I eagerly accepted the job. Ok, maybe not exactly like that, but I did want the job this time. Why the change? Well, I knew that in just another week I was going to be sitting in front of Tom Schomaker in St. Petersburg for the Florida Watchmakers-Clockmakers Association's (FWCA) training on this modular chronograph. It was perfect timing (no pun intended). Imagine how disappointed I was, after a second look at this guy's watch, to realize it was just a regular, old 7750 model. With parts needed, it was just a boring service. I mean, hey, I got training on this one through the FWCA years ago!

All kidding aside, the training did turn out very well. Tom's slide show, explanations with attention to detail, and his patience made for a great learning experience. There's no substitute for hands-on experience with step-by-step instruction. I always come away with more than I expected. We had Richard Cuny from New Jersey come down, and he shared some of his knowledge on the ETA 2894-2 modular chronograph. Tom was giving us an introduction to this model, as well, because you have to know the difference between it and the Du Bois Da Praz. The ETA 2894-2 absolutely requires special movement holders (in the \$1000.00 range and only available

through Swatch after receiving proper training). Considering how costly that one mistake could be, just that information alone was worth the price of admission!

AWCI's Industry Advisory Board (IAB) was also holding their meeting at that conference center those days, and I wanted them to see what a class for FWCA looks like. I believe the IAB members were pleased to see the professionalism and dedication involved. Henry Kessler of Renata Batteries came in to answer our many questions about new mercury-free button cells. Manual Yazijian was good enough to give us a couple hours of time at no charge to cover taking care of our health, paychecks, families, future and more.

Over the course of these few days I learned more than just technical skills. I realized I need to be reminded that we are professionals deserving good pay for quality service. Like it or not, we, as watchmakers, are in charge of changing the image of the watchmaker. The time, money and dedication we put forth just to earn an opportunity to service high-end watches today must be recognized and respected by customers and the stores for which we work. Most importantly, we should never sell ourselves short. Watchmaking or clockmaking isn't easy and not everyone can do it, much less do it well. ♦



Tom Schomaker, CW21, teaching continuing education class on the Vertical Coupling Clutch Chronograph.

Vertical Coupling Clutch Class

BY MATT HRITZ, CW21, FWCA EDUCATION CHAIRMAN



Florida Watchmakers-Clockmakers Association participants.



AWCI's Industry Advisory Board observing Florida class. From left to right: Henry Livesay, Sr., Livesay's, Jim Lubic, AWCI Executive Director, Don Wester, Gary Borel & Kyle Woolworth from Jules Borel, Glenn Gardner, AWCI Affiliate Chapter Chairperson.

Contact Matt Hritz with suggestions for class topics or questions at: info@watchwisdom.com or 941-993-0514.

To receive the FWCA Newsletter, e-mail Angie LeBeau at: angelena5104@aol.com and just say, "sign me up to receive e-newsletter."

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Ohio Affiliate Chapter Welcomes Members to Convention

The Watchmakers/Clockmakers Association of Ohio (WAO) invites all AWCI members to attend its annual convention in July. This three-day event will feature numerous educational and networking opportunities within a picturesque setting deep in Ohio's Amish country.

Watchmakers Clockmakers Association of Ohio 65th Annual Convention

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and Associated Repair Issues

Mike Nestell

Watch

How to Quality Control

a Finished Watch Repair

Tom Schomaker, CMW21

Registration

For more information, including complete convention schedule and fees, please contact Michael Gainey at 614-833-0378 or via email at mjongainey@hotmail.com.

Membership in WAO is not required.



Mark Baker, Presenter



Tom Schomaker, Presenter



Michael Gainey, Presenter



The Carlisle Inn "Deep in the Heart of Ohio's Amish Country"

In Remembrance of Robert Nelson



Robert “Bob” Nelson, a Certified Master Watchmaker and a Certified Master Electronic Watchmaker, passed away in March. Bob became a member of AWI in 1964 and began making his mark on the organization—first as President in December of 1975, when AWI purchased its first building in Cheviot, Ohio, and then through his work with the ELM Trust.

An AWCI Fellow, Bob also received the Watchmaker of the Year Award from the Minnesota Watchmakers Association. Bob was always a helpful and inventive person. Along with his brother, Milford, they built a

“triaxial video camera mount” which AWCI used beginning in 1991 for the Project Extend courses.

A World War II veteran, Bob enlisted in the U.S. Navy in 1942. During his time at sea, he earned a commendation from the chaplain for leading hymns during Protestant services and for demonstrating a fascination with “how things worked.” After the war ended, Bob came home to Fergus Falls, where he was born, and began working at Welanders Jewelry store. On top of being a watchmaker, Bob also had a career repairing microscopes and was accredited by Bausch and Lomb.

An active member of both his community and his church, Bob loved music. He sang in church choirs for 70 years and played the violin for over 40 years. During his time in the Navy, he even kept a violin with him on board his ship, the USS St. Louis.

Bob will be missed by the many who knew him at AWCI.

We’d like to thank the following members for their valuable contribution to the ELM Trust. Thank you!

Avo Antabelian, CW21
Nick Anton
Dick Barton
Robert W. Berry
Dennis H. Brereton
Wilbert G. Campos
Manuel Catarino
Michael Cleves
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Sign up now for Kari Halme's special class in June or one of our new classes on the Modular Chronograph or Polish and Waterproof Testing later in the year!

AWCI Academy of Watchmaking Class Schedule

AWCI is offering a series of 5-day watchmaking classes. Each 5-day block will cost \$725; 3-day block is \$435.00. All classes are held in Harrison, OH.

For additional information call toll-free: 1-866-FOR-AWCI (367-2924), ext. 303 or e-mail education@awci.com. Class information is also available online at www.awci.com.



June 13 - 17, 2011	Servicing & Adjusting the Modern Automatic Chronograph
June 27 - July 1, 2011	Special High-Grade Automatic Class with Kari Halme - Title still to be announced. <i>This will be a VERY advanced class with strict prerequisites.</i>
Sept. 12 - 16, 2011	Servicing & Adjusting the Swiss Lever Escapement
Sept. 26 - 30, 2011	Balance Staffing & Timing
Oct. 10 - 14, 2011	NEW Class! Modular Chronograph (Featuring the Vertical Clutch System)
Oct. 17 - 21, 2011	NEW Class! Polishing & Waterproof Testing

AWCI Watch Repair Course schedule is subject to change. Seats may become available for the classes; please contact AWCI to be added to the waiting list.

AWCI 21st Century Certification Exam Schedule

Visit AWCI's website for complete information on the 21st Century Certified Watchmakers Exam. To register for an exam or for more information call toll-free: 1-866-FOR-AWCI (367-2924), ext. 303 or e-mail education@awci.com.

- June 20-23, 2011 AWCI Training Facility, Harrison, OH
- July 11-14, 2011 AWCI Training Facility, Harrison, OH
- August 8-11, 2011 Lititz Training Facility, Lititz, PA
- August 15-18, 2011 N. Seattle Community College, Seattle, WA
- September 19-22, 2011 AWCI Training Facility, Harrison, OH
- October 3-6, 2011 AWCI Training Facility, Harrison, OH
- November 7-10, 2011 AWCI Training Facility, Harrison, OH
- December 12-15, 2011 St. Paul College, St. Paul, MN

Please Call AWCI for Available Dates.

Congratulations to Rik Dietel, Seminole, Florida for achieving his CW21!



The AWCI Watch Certification schedule is subject to change. Seats may become available for the exams; please contact AWCI to be added to the waiting list.

TIME FOR LAUGHS

Investment Advice:

If you had purchased \$1,000 of shares in Delta Airlines one year ago, you would have \$49.00 today!

If you had purchased \$1,000 of shares in AIG one year ago, you would have \$33.00 today.

If you had purchased \$1,000 of shares in Lehman Brothers one year ago, you would have \$0.00 today.

But, if you had purchased \$1,000 worth of beer one year ago, drank all the beer, then turned in the aluminum cans for the recycling refund, you would have received \$214.00.

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It is called the 401-Keg Plan.



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Seeking Committee Volunteers

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There's no better place to find immediate information on recent events than the American Watchmakers-Clockmakers Institute Facebook page. You'll find everything from events to PowerPoint presentations to links to articles. Right now, for example, you can find the entire PowerPoint from Witschi on *Quartz Know-How for the Professional* which many people have asked to view. We'll also have ongoing updates on the upcoming convention. *Like Us* so we can continue to double our weekly visitors! It's a great way to stay updated on events in the watchmaking-clockmaking world. (Yes, we're definitely including info for our clockmaking friends, too!)

THE SEA HAWK PRO 1,000M DIVING WATCH

Girard-Perregaux presents a new interpretation of the Sea Hawk Pro 1,000M, a robust diving watch. Its luminescent orange minute hand gives this watch an immediately recognizable style.

The name "Sea Hawk" has been used by Girard-Perregaux since the 1940s to designate models designed for use in extreme conditions. The collection's current design was conceived in 2002, and its style is characterized by generously-sized cases and a crown at four o'clock which is protected by an original, ergonomic crown shield.

The latest creation in the Sea Hawk Pro 1,000M range features a display on which its functions stand out clearly on a matte black dial. The bright orange touches on the minute, small second hands and on the power reserve indicator. This adds a dynamic element to this bold diving watch, ensuring optimal readability of the dial even in murky conditions.

State-of-the-art technology and watchmaking expertise guarantee superb performance, including water resistance down to 1,000 meters to comply with ISO 6425 standards relating to diving watches. The GPO33R0 movement with automatic winding and the case have been entirely developed and produced by the manufacturer. The case is equipped with a screwed crown and a unidirectional rotating bezel in steel to enable the dive time to be monitored. A helium valve allows decompression of the watch after deep dives.

The screwed case-back of this sporty, technical watch is adorned with engraving work symbolic of the brand. The porpoise, anchor and trident of the engraving are a reference to a Girard-Perregaux patent which dates from the end of the 19th century. At the time, the symbols were accompanied by the inscription, "Do nothing without advice".

The Sea Hawk Pro 1,000M is available with a rubber strap featuring a folding safety clasp. Its extension system allows the strap to be easily adjusted in order to compensate for differences in temperature or to enable the watch to be worn over a dry suit.

Technical specifications

Steel case

Diameter: 44 mm

Crystal: sapphire

Helium decompression valve

Case-back and crown: screwed

Water resistance: 100 ATM

Movement:

Girard-Perregaux Movement GPO33R0

mechanical with automatic winding

Caliber: 11 ½"

Frequency: 28,800 vibrations/hour (4 Hz)

Jewels: 27

Power reserve: minimum 46 hours

Functions: hour, minute, small second, power reserve indicator, date

Strap:

Rubber strap

Safety folding clasp with extension system



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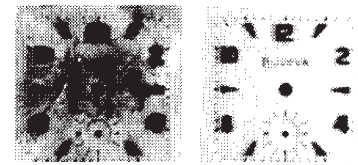
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