HOROLOGICAL™ TIMES

July 2006



American Watchmakers-Clockmakers Institute

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COVER

This month's cover features a pocket watch by Joseph White & Sons



President's Message

Jim Door

The end is near. No, the world isn't coming to an end; my time as a Board member and as an officer is rapidly drawing to a close. It has been an honor serving in such capacity. I have learned much in my time on the Board.

Much has changed during my tenure on the Board. At first I was anxious to see changes made quickly. But as I learned, the best changes rarely come swiftly. They must be thought out, researched and then properly implemented.

We must take risks at times in order to move forward. No one on the Board likes to operate with a negative budget. However, at times we must step out in faith to make investments in programs and benefits for our membership. It will take time for us to recoup our investments and we must be patient.

First and foremost AWCI is an educational organization. This has not changed over the years. For many years most of our membership consisted of watchmakers, some of whom also serviced clocks. Today that is no longer true, no single classification of service has a clear majority of membership. It would be fair to say that we have three primary classifications of members: watchmakers, clockmakers and watchmaker/clockmakers. It can be further broken down by professionals (that is they make money by servicing timepieces) and enthusiasts (those that desire to learn more even though they may never make money doing so). It is not always easy to balance the needs of each of these categories.

(Continued on page 25.)



Executive Director's Message

James E. Lubic, CMW

AWCI is a volunteer driven, not-for-profit membership organization consisting of a 12-person Board of Directors, 13 committees, 22 Affiliate Chapters, 26 Industry Advisory Board members, and 12 REC schools. Every year at this time we solicit the membership for volunteers to lend their expertise to AWCI. Again this year we are appealing to our membership to get involved. The only requirement is that you are a current member, have access to e-mail, and you are willing to give some time to the organization.

Please see page 44 for a complete list of committees, and a sign-up/committee request form. You can photocopy the page, fill it out and fax it to us at 513-367-1414, or simply e-mail your choices to me at jlubic@awci.com. Your requests will be delivered to the AWCI President. The President assembles the committees and submits his committee choices to the Board of Directors for a vote within 30 days of the annual meeting per the AWCI Constitution and Bylaws.

When assembling the committees, the President will also consider the goals and objectives of the various committees as they relate to the Institute's strategic plan. As these goals and objectives are met, the strategic plan is updated, and new ones are put in place. To see a current list of the committees, along with their goals and objectives, please go to the AWCI website at www.awci.com. Click on "About" and then click on "Committees".

If you would like to get involved with AWCI on a more local level please refer to our list of Affiliate Chapters, which is also posted on our website under "About" then "Chapters" in the drop down menu. The various Affiliate Chapters are also looking for volunteers.

If you prefer to work on your own and would like to volunteer for the organization, we are still looking for members who would like to prepare short PowerPoint presentations that we can post on our website. These

(Continued on page 25.)

Assorted Assortments from McCaw's









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David Christianson,
CMW, CMEW, FAWI

Questions & Answers

Question

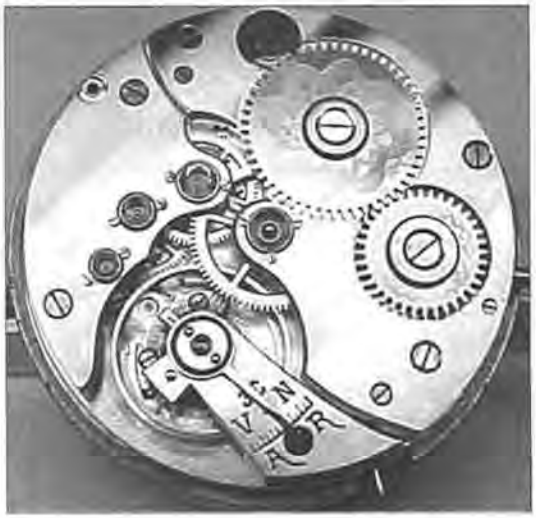
I am trying to find any history on this watch company. It seems like a nice watch, even has stop works on the barrel, but the 18K case needs a hinge replaced on the front bezel and I am trying to decide if it is worth it. The movement cleaned up really nicely and runs like a million bucks.

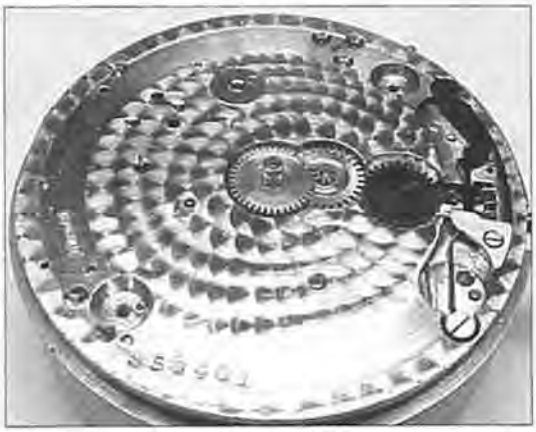
The extreme outside diameter of the pillar plate is 19 ligne; the diameter of the case opening is 41.3 mm. The marking that is counterclockwise from the serial number on the dial side of the pillar plate is "depose" which I think means, "patent applied for". There are no case marks in the case other than what is on the cuvette, a serial number, a lady's head and "18K" on the inside of the back cover and cuvette.

I have searched through all my books and found nothing except that I think the arrow trademark in the pictures is Fontainemelon? Other than that, I find nothing about Magnus Chronometer. Any help is always so much appreciated.

Jon W. Horton, Tulsa, Oklahoma







Answer

I cannot find any reference to Magnus or Chronometre Magnus, a situation that seems strange to me because of the obvious quality of this watch. Even Kathleen Pritchard, in her monumental work, *Swiss Watchmakers: 1775-1975*, doesn't seem to have any reference to this name. Magnus apparently was a trade name used by some (at this point unknown) watch distributor. From the engraving on the cuvette (inside

(Continued on page 32.)

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New !

Two Head Bergeon Oscillating Weight Tool

Swiss anodized aluminum handle with two quick change stainless steel heads to lock & unlock oscillating weight retaining rings for these calibers.

Head A (Ø 10.3mm): ETA 2892, 2893, 2894, 2895, 2896, 2897

Head B (Ø 7mm): Valjoux 7750, 7770, Valgrange A07111, A07161, A07271

BG6923 Osc. Weight Tool $ 79.50



Introductory Special

New Sharpener for Screwdriver Blades from Bergeon

Two parallel abrasive cylinders put the right curvature on your blades. Another stone puts a flat edge on the tip. Fewer scratched screws and bridges and saves on buying replacement blades. For screwdrivers of any diameter, blades sizes from Ø 0.70 to 2.50 mm.

BG6924 Blade sharpener $ 465.00



New 3 Stake Hand Press

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HT-M5017 3 Stake Press $ 127.00

HT-M5015 Single Stake Press $ 68.00

New Screw-on Pusher and Case Tube Tool Set



A necessary tool for removing and installing chronograph pushers that screw on or screw-in case tubes. 7 tips to grip tubes fluted on the inside, and 5 sizes to grip those fluted on the outside. The tips all interchange with the red handle. Base provides convienent storage. Horotec from Switzerland.

RM-M622 Pusher/tube Tool $ 199.00

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SWATCH GROUP U.S.

In order to ensure that the service partners of Swatch Group U.S. are able to meet the needs and requirements of our brands we require every independent watchmaker and service center meet a minimum criteria in each of the following categories.

Staff

Experience and training of the technical team is very important to provide quality service to our clients. Therefore, the candidate(s) must have training from a formalized school or a recognized certification program, such as the American Watchmakers-Clockmakers Institute (AWCI).

Workshop Premises

There must be proper and adequate space allocation for the watchmaker and equipment. A separate area for polishing and cleaning equipment is required, as well as a general upkeep, organization and cleanliness of the overall facility.

Technical Equipment

General and Specific required equipment that must be present include:

- Movement cleaning machine
- Vacuum and air pressure water-resistance tester
- Measuring device for quartz movements
- Measuring device for rate and amplitude of mechanical movements
- Microscope
- Final test rotation units (cyclomats)
- Demagnetizer
- Staking tool
- Case opener
- Crystal and case back press
- Printer for timing and water-resistance results
- Mainspring winder
- Jewel press
- Movement holders with jewel supports

Additional brand tools and equipment may be required to purchase specific watch components.

In all cases the individual brand distribution policy for spare parts will be respected by SGUS. Therefore the components for certain brands of the Group will not be sold.

General

A computer with high-speed internet access to support specific Swatch Group brand extranet and CD nomenclature, proper repair tracking software with statistical information capability and proper repair boxes/envelopes for watches in process are highly recommended.

After review of the information above, if you would like to request a site visit by one of our representatives to assess your location and verify that it meets our requirements, please contact Swatch Group U.S. directly via e-mail at SGMAT@Swatchgroup.com to request an application.



Oil Stand

High quality oil stand made with genuine agate wells that will not absorb oil. Other brands use plastic wells that absorb oils. All four wells have hinged, close fitting covers. Made in Switzerland.

Stock No.	Description	Price
BER-30180A	Oil Stand	$92.85



Moebius Watch Oils

Moebius brand of oils and grease are the most widely used and recognized lubricants in the horological industry. Developed in Switzerland, their brand of lubricants are used and trusted by the most prestigious of Swiss watch manufactures.

Stock No.	Moebius No.	Description	Price
42.0206A	8200	A general purpose mainspring grease. Suitable for manual wind watches.	$11.85
42.0207	8201	A mainspring grease recommended for automatic mainsprings.	$18.75
42.0213	8513	Silicone case sealant. Use on case backs and crowns.	$18.75
42.0215A	9010	General purpose synthetic oil.	$18.75
42.0217	9030	Useful for lubricating movements exposed to frigid temperatures. Suitable to -104F (-40C)	$18.75
42.0219	9020	For use on transmission wheels, stem (square & groove), winding pinion, set lever & set lever spring, the intermediate wheel post and minute wheel post.	$18.75
42.0227	9415	A synthetic grease used on impulse plane of teeth of the escape wheel.	$20.85
42.0229	9024	Used to lubricate plastic gear trains.	$18.75
42.0233	941	For use on pallets and escapements. Especially useful on the impulse plane of pallet stones.	$18.75
42.364	8000	A popular general purpose watch oil. Can be used on all gears except for mainspring and winding mechanism.	$17.00
42.365	9000	Designed for quartz watches, particularly the rotor bearing, click wheel and gear train. Non-spreading, long lasting with good viscosity.	$24.68
42.500	9010	For use on the pivots of balance and escape wheels. Can also be used on balance staffs and pallet jewels.	$18.75
42.512	8300	Specialized mainspring lubricant when #8200 is too fluid. Suitable for large watch movements and small clocks.	$11.95
421.532	5900-DS	A pressure resistant lubricant formulated for auto devices and gear trains. Also known as DS oil.	$19.75
421.534	HP1300	Synthetic lubricant for use on gear trains, barrel arbor, mainsprings. Suitable for movements under high pressure.	$65.60

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Joseph White & Sons Pocket Watch

Curtis D. Thomson

Using Robert North's 1903 design, Joseph White & Sons in 1912 made an "inexpensive" six-minute flying tourbillon that is once again in an owner's pocket.

In 1835, Coventry, England, was already one of England's clock and watchmaking centers when Joseph White, ten-year-old son of a watchmaker, began earning money as a watchmaker's errand boy. Four years later, he was indentured to a watchmaker in Coventry named Nathanial Hill. He ended his apprenticeship with Hill at twenty-one, when he made his masterpiece, a small long case regulator. As with the day's tradition, the clock would become his workshop regulator for the timing of all future watches.

He and Hill partnered for two more years after which White started his own business and workshop, also in Coventry. In 1860, after several moves, they landed in Earlsdon, a suburb of Coventry, where the team would remain until White's death in 1906.

White employed, trained and apprenticed many over the years and, according to Jeremy Hassell, who wrote about White in the December 2003 issue of *Antiquarian Horology*: "Like all other manufacturers, Joseph would not have made every watch movement in its entirety, but would have purchased whole movements and other parts from specialist makers. It was in the finishing process that the skill of the master watchmaker lay."

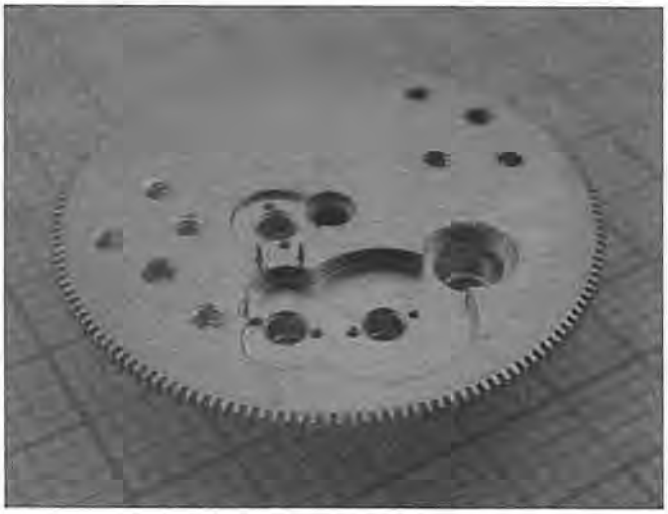
Clearly a shrewd and forward-thinking man, White understood, "both American and Swiss watchmakers were to develop mass production techniques, which undercut the higher costs and prices of Britain's cottage industry. Joseph White & Son's (with twelve children in total) answer to this was to diversify by producing specialized timepieces, horological components and precision watches. Many of the last were to be used as deck watches by the admiralty. The firm made simple pocket watches as well as fine repeaters and chronographs, including keyless and key winding adjusted lever watches. Their real specialties, however, were the tourbillon, karrusel and "flying" tourbillon watches," added Hassell.

White made karrusels under license from Bahne Bonniksen, the Danish born watchmaker, who settled in Coventry and was the systems inventor. White also licensed the use of Robert Benson North's six-minute flying tourbillon, which were both rare and valuable both as deck watches and gentlemen's watches, added Hassell.

Providing movements for many recognizable makers, they also submitted watches for observatory trials, with many of their watches performing well and some taking top honors.

After his death in 1906, White's son, Howard, continued the firm until the early 1930s.





The tourbillon carriage/platform, with 150 teeth cut around the periphery, carries all escapement parts. The carriage is fitted onto a steel post that is secured to the plate.

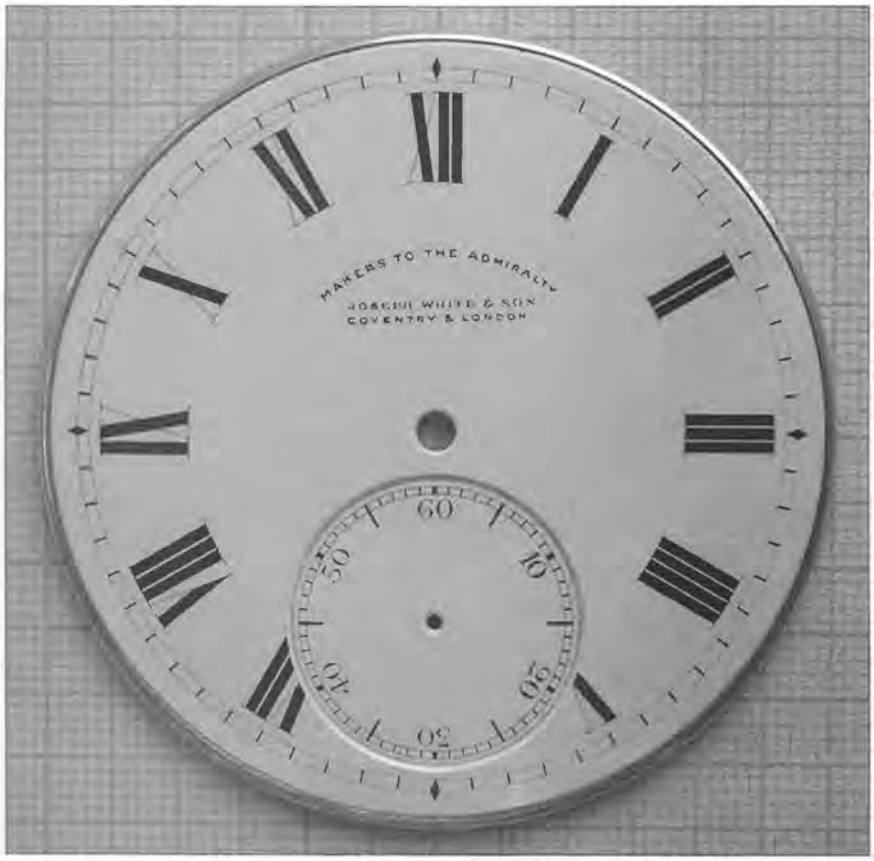
Good Fortune

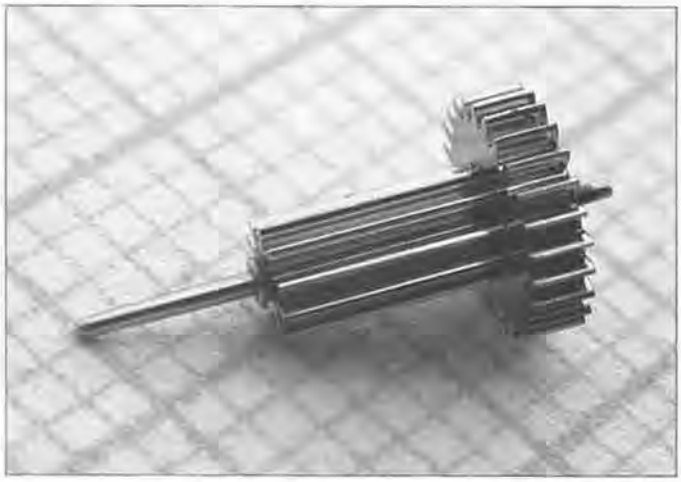
It was my good fortune to have not only the opportunity to see, but also to service a Joseph White & Son open-faced pocket watch fitted with North's patented six-minute flying tourbillon earlier this year. The watch came to me directly from a vault where it sat for many years.

From first blush, the watch appeared to be in excellent original condition. The silver case is hallmarked London, 1912, with the initials WB for the case maker. The stamped hallmarks are faint from over zealous polishing in the past. The crown and pendant are gold. The case showed slight wear, which gives the impression that it saw very little real world use.

The dial is fine white enamel in superb condition, with Roman numerals marking the hours. The name on the dial reads "Makers To The Admiralty, Joseph White & Son, Coventry & London." The blued spade hands are in wonderful condition and color.

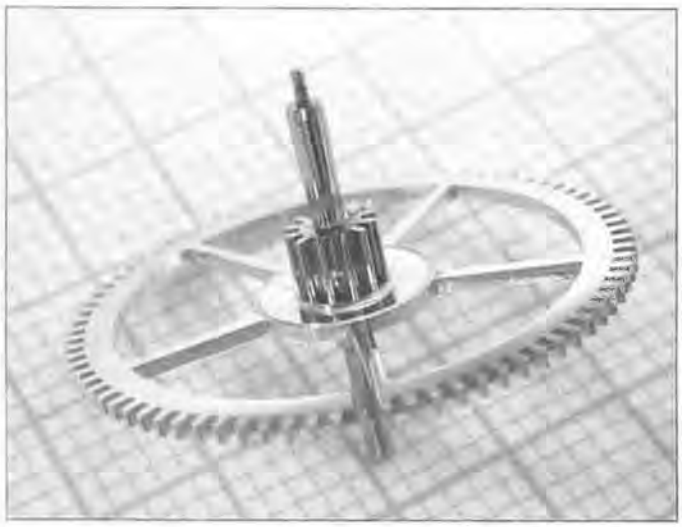
When looking at the movement, three things jump out quickly. One, it isn't signed—no maker's engraving to be seen. Second, there are several unfortunate oil spots on the plates, bridges and cocks. (However, aside from these spots, the gilded movement is in stellar condition without excessive nicks or gouge marks.) The blued and finely polished screws are in nice condition, as well. The fine outward condition is unusual given the age of this piece and only adds to the notion that it has spent most of its life unused.





Top: *The fine white enamel dial, with Roman numerals, indicates the hours, and features a sunken subsidiary seconds.*

Left: *Seconds arbor. Note long pivot that carries the seconds hand and 25-tooth steel wheel that drives the 150-tooth tourbillon carriage/ platform.*



Center wheel - note fine craftsmanship and mechanical finish.

Finally, the tourbillon looks more karrusel-like than tourbillon, but it is indeed a tourbillon—it has a fixed wheel.

Once taken apart, the stamp of Joseph White & Son is visible, confirming the identity of the movement, but still leaving me scratching my head as to why there isn't any engraving on the movement. Asking those more knowledgeable than myself, a consensus is reached that this is a question that will remain unanswered.

Oily History

As I take the movement apart, the sloppy and careless work of the last watchmaker is evident with oil and grease in places where there shouldn't be any, and no lubricant where there should be some. Maybe this explains the unfortunate oil spots on the movement? Hand setting and winding is achieved with a rocking bar system. The large going barrel is fitted with Geneva stop works. The mechanical finish of the parts is excellent in the main, with only a few pivots that had been running dry in their jewels showing score marks. These pivots were burnished in the Jacot tool.

The jewels were in excellent condition and were free of inclusions and of an attractive red color. The movement is jeweled from the center wheel outward, with all of the escapement parts (escape wheel, pallet and balance) having end stones with the balance sporting a diamond end stone). Most of the jewels are set in screwed chatons.

The escapement is an English ratchet tooth lever, with the steel lever having expertly fitted and contoured pallet jewels in the anchor. The single roller, split bi-metallic balance is free sprung using a tempered steel hairspring with overcoil.

North's Tourbillon

The most unique aspect of this watch is, obviously, the use of North's six-minute flying tourbillon.

Robert Benson North (1867-1929) was managing director for Nicole Nielson & Co. as well as latter being appointed director and chairman of Charles Frodsham & Co. In between those stints he managed his own company and patented his flying tourbillon (applied December 23, 1903), which states, "The principal object of my invention is to counteract or annul the errors due to varying positions in which the watch or other timekeeper may be placed while at the same time to attain a cheap and practical form or mode of mounting of the revolving platform which carries the escapement."



Mainspring barrel fitted with Geneva Maltese stop works. When set up correctly, the stop work allows only the "middle" portion of the mainspring to be used, thus ensure a flatter power curve and a more constant torque.



Tourbillon's fixed wheel.

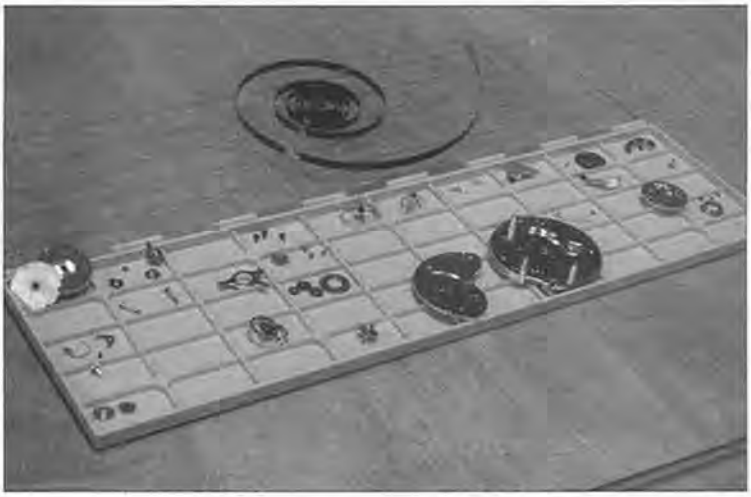


Complete tourbillon.

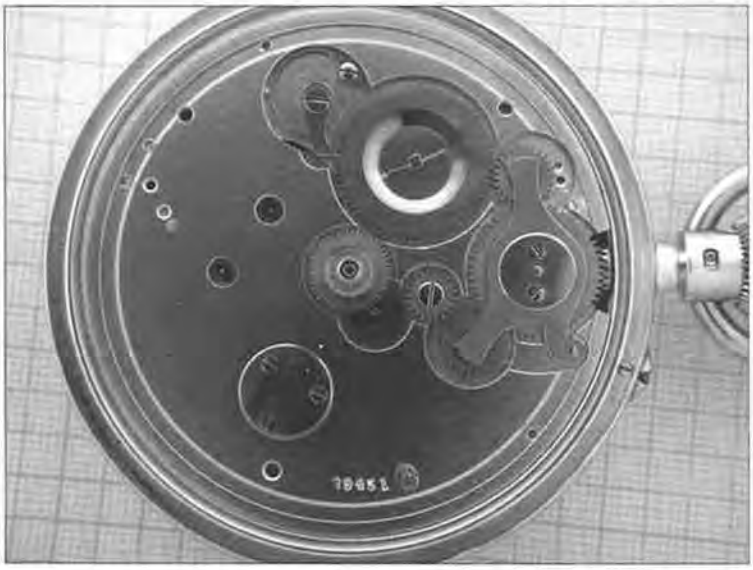
The first part is the goal to have all-rotating escapements, but the second part is unique. Tourbillons, especially at this time, were expensive to make and required watchmakers of great hand skills to execute the task. North's patent removed the hand skill element by making the components friendly to the era's manufacturing abilities. This is not to say it was "easy," but it was certainly more achievable than the highly honed skills necessary to construct a more traditional tourbillon by hand. And, as can be clearly seen, the construction is quite robust, as compared to the fineness of a traditional tourbillon. These attributes met the "cheap and practical" aspect of his patent.

North's tourbillon is flying, meaning it is without an upper bridge supporting the carriage, as is found in traditional tourbillons. The tourbillon carriage has 150 teeth cut onto its outer edge and is supported by a jeweled tube on its underside rotating on a hollow steel post. The carriage is driven by a steel wheel of 25 teeth that acts as the seconds arbor/pivot (the seconds hand is fitted to its extended pivot) and it is this relationship that enables the carriage to rotate once in six minutes. This thereby avoids the usual inertia problems faced by one-minute tourbillons.

It should also be noted that North's patented flying tourbillon predates Helwig's flying tourbillon system by more than two decades.



Box o' bits... disassembled movement.



Cased movement, under dial view. Note rocking bar winding/ setting mechanism.



Cased movement, with portrait of Joseph White.

Class, Not Flash

Joseph White and Son's work is of good, sound quality, as one might expect from a maker of the Admiralty, but it is without the finishing refinements one might find in, say, Frodsham's work. It is first class, but without flash.

Appreciating the overall condition and original finish more than making it "as new," the owner wanted a "conservationist" approach, as his intentions are to enjoy it for what it is and not for what it could be, and to wear it on special occasions once or twice a year.

I am happy to report that this Joseph White & Son six-minute tourbillon has enjoyed a couple nights on the town since leaving my workshop and is performing well and bringing its owner joy and pride in having such a rare and interesting piece.

Curtis D. Thomson restores complicated watches and clocks in Walpole, New Hampshire, and also moderates the AHCI discussion board on thePurists.com.

"Joseph White & Sons Pocket Watch" is reprinted with the permission of Curtis Thomson and International Watch *magazine (February 2006).*



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Mark Butterworth

The Modern German Clock Movement

Setting the Hermle Strike: A Striking Revelation

Part 64

For most folks, setting the strike on any clock means adjusting the hammers and lifters such that the hammers are not under any load when it is in warning and after finishing the strike. Not a lot of thought is given to setting the snail, and in most cases no harm is done. There are those times when statistics catch up with us and the clock strikes 11 o'clock just fine, and then the clock may strike only once or any number up to but less than 12 o'clock. This incorrect striking occurs when the rack tail falls on the side of the snail itself and can happen with any rack and snail movement, not just Hermle.

As a result, there are some general procedures that should be followed regardless of the manufacturer. When setting the strike, the initial setting should be done for the 12 o'clock position. (Please see Figure 1 showing the rack tail for the Hermle 351 model in that position.) The reason is that this portion of the snail has the shortest linear width; if the rack tail drops correctly on that position it is nearly assured to be correct on the others. I do recommend checking the 11 o'clock and 1 o'clock at the same time, however. A minute of time now can save a lot of time later. Don't forget that on the modern German units the hands can be turned backwards past the hour so the task really is simple and fast.

It turns out that there is one other potential problem. It is quite possible that the rack tail falls on a given step on the snail, but the unit does not strike the corresponding times. This can be due to a number of issues, the most likely that the angle between the rack tail and the rack is not exactly correct. Hermle has a quick check method on its movements for two critical times without the necessity of counting the teeth on the rack. These are at the 7 and 10 o'clock



Figure 1. The rack in 12 o'clock position, dimples on the snail at 7 & 10 o'clock as well as the numbers 7 & 10 on the rack for corresponding tooth count, German-made Hermle 351 series.



Figure 2. The 7 o'clock position on both rack and snail, German-made Hermle.

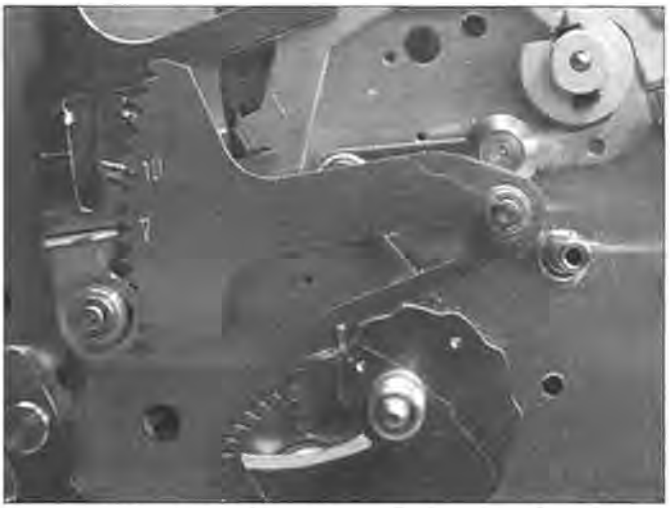


Figure 3. The 10 o'clock position on both rack and snail, German-made Hermle.

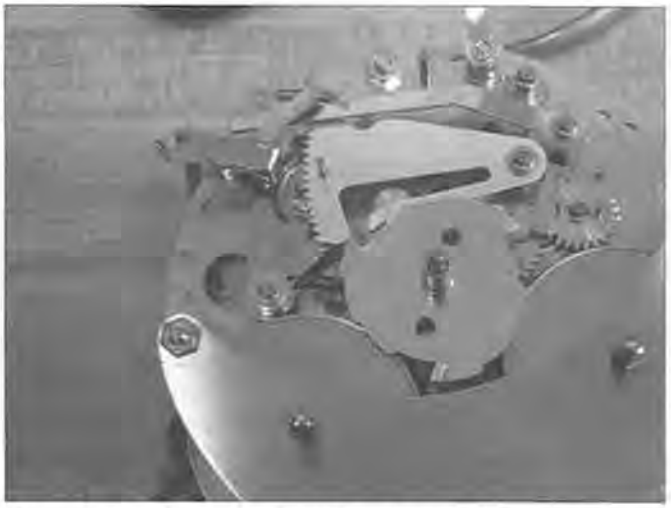


Figure 5. The ship strike 132-071 unit at 12 o'clock position on snail. Note snail has three complete series of steps to repeat each 4 hours.

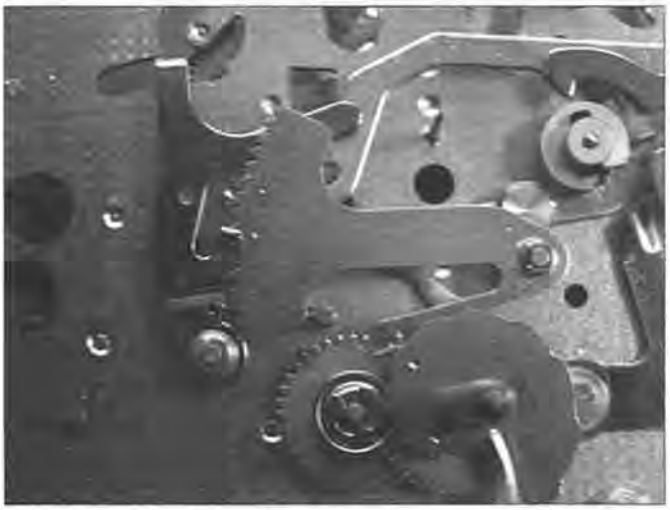


Figure 4. The rack punch marks on U.S.-made Hermle 1161 series.

positions. For the Hermle units made in Germany, there are dimples punched onto the snail at those two positions and the numbers 7 and 10 are stamped into the rack at the correct tooth count. (Please see the punch marks on the snail and rack in Figure 1.) In that way, after the snail has been properly set to the 12 position, the minute hand can be turned clockwise until the rack falls on the first dimple. Drop the rack down until the rack tail falls on that step and the rack hook should fall into the 7th tooth as marked on the rack. (Please see Figure 2.) Do likewise for the 2nd dimple on the snail and the 10th tooth as marked on the rack should be engaged. (Please see Figure 3.) By using the marked spots, one does not need to go through the process of physically counting the teeth on the rack. Of course, it is also convenient to count the 1 o'clock position as it only engages the 1st tooth on the rack. For those Hermle units made in the USA (the three-weight ones), the numbers on the rack are replaced by punch marks, but it should be clear which punch marks line up. (Please see Figure 4.)

The exception to this is the ship strike movement marked 132-071 (also -041). It strikes 8 bells at 4, 8, and 12 o'clock and I suggest checking the setting for both 12 o'clock and 12:30 (1 bell). (Please see Figure 5 showing 12 o'clock position.)

One other condition is when the clock always strikes 12 o'clock regardless of the hour. In most cases this is the result of the rack tail being bent inward and falling behind the snail. The solution is to bend the tail outward away from the movement until it hits squarely on the vertical edge of the snail. Note that if the hands are not on the movement, it is quite possible and normal for the snail to slide forward just enough for the rack tail to fall behind the snail. That is one reason why I recommend testing the unit with the minute hand at least secured on the movement.

Final tip: the farther a finished grandfather clock unit must be delivered, the more rigorously it should be tested, even a new one.

Final thought: *"Happiness is like a butterfly...If you pursue it, it will elude you...But if you turn your thoughts toward others, it will come and quietly land on your shoulders."—Anonymous.*



Certification Central

Defining a New Generation of Horologists: AWCI begins extensive work with business and industry to meet 21st Century market needs.

Vincent E. Schrader
Ph.D., CMW
Chief Examiner

Late in April of this year, I ran into Tom Pack in the hallway at AWCI offices, and he was shaking his head and smiling.

"What's up?" I asked.

He replied, "I can't EVER remember so much going on at the same time around here." Not being an "old-timer" I couldn't testify to this, but I was willing to take Tom's word for it. Jim Lubic, Manual Yazijian, Nancy Wellmann, the rest of the staff.... all were wishing they had extra arms, legs, and hours in the day. Me too.

We (AWCI) began in late April a series of events which created the potential for some highly important organizational development, professional development, and knowledge generation for the times to come. Here's a list of what was happening, much of it simultaneously.

1. Members of business, industry representatives, and AWCI representatives met to discuss the needs for a new type of (watchmaker — or if that was even the right title) to meet the needs of the current market. Major manufacturers were present: Swatch, Movado, LVMH, Richemont, and Rolex represented the timepiece manufacturers. Henry Kessler of Sy Kessler Sales, Inc. (tools and batteries) was present. Past President Jack Kurdzionak was present representing AWCI, industry (Eckcells), and the benchman himself, as Jack still actively works at the bench and serves on AWCI's Board of Examiners. A full list of the participants will come later in this post. We had people who work "behind the counter,"



Peter Foster, Dennis Post, Willem Van Kempen and John Sokol work on determining the needs of the consumer when purchasing a timepiece.

marketing representatives, and service representatives.

2. The Clock Committee, headed by Jerry Faier and his band of "merry men" (where are the ladies in the clock field?) were busy tying together the last strands of the new clock "Standards and Practices," and building, along with yours truly, the pilot examination which will form AWCI's effort to build a meaningful certification for new clockmakers. This is also a lengthy subject which will be addressed in future issues of the *HT*, albeit briefly here.



Wes Grau and C.J. Katsetos work on the charge of refining a long, long list, to one which is shorter and more manageable.



Workshop director Winnie Reid observes as Karen Elliott, Henry Kessler, Glenn Gardner, and Ewell Hartman decide, after several minutes of debate, how to prioritize critical knowledge and skills.

3. The Board of Examiners' assigned scoring team of Tom Schomaker, Joe Schrader, Jack Kurdzionak, Gerhard Loitz (Director of Service of Jaeger LeCoultre), and Heinz Imhof (Director of Service of Rolex: Houston) engaged in a scorers' training/scoring session and scored timepieces of candidates whose work had been completed earlier in the year in an effort to attain CW21 status.

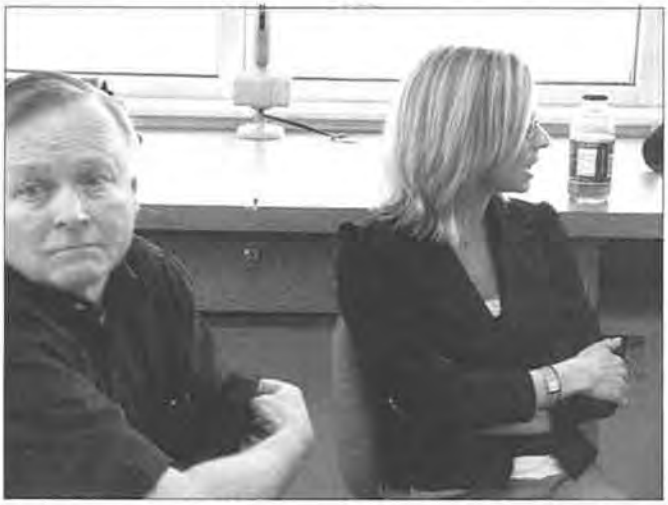
4. Manuel Yazijian, in the middle of the chaos, worked to prepare course work that he has been very active in developing to support AWCI's new certification and standards.

"Chaos" is probably not a good word choice, though. It only felt that way. Overall, the days were smooth. All of the participants were able to interact on both a personal and professional level. The clockmakers got to see the watch scoring process first hand, and to reference the scoring activity in their own thinking. Industry members had an opportunity to see AWCI in action...and they saw a bustling, active, energetic set of initiatives being set into action, or actually being carried through to completion. Those who sat in the session to build new assessments and certifications for the "pre-CW" horologist got to see how Castle Worldwide, a large national test-builder subcontracted by AWCI, began implementing the process.

In sum, it was a very exciting period.

Setting Standards for a "New" Kind of Watchmaker

If you've been following this column and the associated articles in the *HT* over the past two years, you know that the Twenty-first Century Watchmaker role has been redefined, standards have been written,pilot testing has occurred, and a new examination has been adopted. Also,



Dennis Warner and Stephanie Hull listen intently to the discussions of group to either side of them.



Jack Kurdzionak and Brad Mathews concentrate on commentary from Stephanie Hull (unseen) to their right.



John Sokol offers his viewpoint on the ideas of his colleagues in their assigned tasks.



In the new "break room" Willem Van Kempen, Jim Lubic, and Dennis Post retreat from the activity going on elsewhere, in order to focus more intently on their tasks.



Dennis Warner, Brad Mathews, and Bernhard Stoeber, "put it in writing".... the flash memory cards were indeed "flashing" all over the room as the group pushed to pull documents together.



Peter Foster looks on as Winnie Reid discusses the WT program.

candidates are now being actively tested, their work assessed, and certifications are being issued. The results of this effort have been a breath of new life for modern horologists, and AWCI. Rolex and Swatch have officially recognized the new certification as highly valid for their needs and have forwarded substantial support to successful candidates. Richemont and LVMH have done likewise. We anticipate that others will soon follow.



Bernhard Stoeber and Monika Masry

Over the past year more than 50 candidates have participated in the new certification process, and this number will likely be over 100 before year's end. It is our hope to see our CW candidate numbers increase to 150 per year for upcoming certification period, as we continue to build the capability to administer and score what may emerge as a very prestigious examination and certification.



Karen Elliott, Henry Kessler, Glenn Gardner, Ewell Hartman (not shown) and Dennis Warner.

While the development of the new CW examination has gone from start to full implementation in barely a two-year span, this timetable has not been satisfactory for many members of the Board, who have asked that the process be accelerated. For a volunteer organization, this is a tough call. Good standards development, assessments, scoring and certification validation is a complex and expensive process. Getting the new CW "off the ground" has been exciting, but has drained a lot of volunteers to nearly a "breaking point." For this reason the Board of Directors approved outsourcing the category of certification now tentatively referred to as "Watch Specialist/ Watch Technician" to a group specifically devoted to such tasks. Castle Worldwide, represented by Dr. Winnie Reid, began this process at AWCI with the aforementioned expert panel in April. The task of this group was to define the knowledge and skills required of the certified individuals, and then validate this through survey research of key stakeholders. This is currently precisely where we are as this writing occurs. The survey itself will go out to 500 key stakeholders, and the resultant information will then be used to build a preliminary written assessment. Performance components, the most expensive portion of the examination, have yet to be addressed, but are a part of ongoing dialogue with the Castle Worldwide.

Putting this all in simpler terms:

1. Who are we talking about in terms of handling watches for the industry?
2. What must they know and be able to do?
3. What kind of assessments will get this information to us?
4. How much can we do with paper and pencil, through the internet, or will require actual hands-on observation?

5. How much will we have to invest in terms of time and expertise in training scorers?

Though I know a number of you don't care about my personal opinions, I know that this type of work is really intense, and frankly, much of it is very boring. Nonetheless, it is crucial that someone sit down and do it. This has happened. To help you see a little of the kind of thing that evolved from the expert panel's work, here is but one of dozens of documents (generated by one small "circle" of experts) to address what a "watch technician" should know and be able to do. (See sample below.) Please note that this is right off my notes, and is NOT OFFICIAL.

Doesn't this look like fun? Actually, many times the conversation was very exciting, and some individuals became really invested in the process. Two days were spent identifying domains of knowledge and the requisite attributes for these domains. Fortunately, Ewell Gibbons, one of the participants in the process helped to keep everyone from becoming overly serious. No blood was shed. Actually, the opposite seemed to occur. By meeting's end, participants were extremely excited to see AWCI move forward. So, stay tuned. We're working hard on your behalf.

WT Participants:
Winnie Reid, session leader
C.J. Katsetos
Wes Grau
John Sokol
Dennis Post
Peter Foster
Brad Mathews
Jack Kurdzionak
Stephanie Hull
Dennis Warner
Ewell Hartman
Glenn Gardner
Henry Kessler
Willem Van Kempen
Bernhard Stoeber
Andre Fortner
Karen Ellliott
Monika Masry
Vincent Schrader
Jim Lubic

WATCH TECHNICIAN I

This individual can:

Explain the features of a mechanical watch to the customer so they can make an informed decision.

Explain the features of a quartz watch to the customer so they can make an informed decision.

Explain the timekeeping expectations between mechanical and quartz timepieces to the consumer so they fully understand the varying degrees of accuracy.

Explain to the customer all features of watches that are available through different watch brands so choices can be made to fit their needs.

Explain to the customer the different styles, materials and surface treatments used in watch cases so they understand the level of protection the case affords.

Explain to the customer the different style, materials and surface treatments of watch crystals so they understand their advantages and disadvantages.

Explain to the customer the different styles, design, material, clasping techniques and ways of adjusting the length of the bracelet so they understand their options.

Demonstrate to the customer the setting and/or winding of the timepiece so they fully understand the proper operations of their watch.

SAMPLE

A Tale of Two Pivots

Or, how I learned to stop hole-gouging, and learned to love a burnisher.

Vincent E. Schrader, Ph.D., CMW
Chief Examiner

It's important to note, that while I am familiar with clocks and watches, I have never repaired clocks. As a psychometrist and watchmaker, I've had the pleasure of seeing two fields of great interest to me blend together to form an impressive new vehicle for assessing and certifying modern watchmakers.

But as for clockmakers? I have learned a lot by hanging around Jerry Faier and his group of clockmakers as they work toward building a valid examination for new clockmakers, one which AWCI members can be proud of.

This article is more of an essay of personal reflections on the recent assessment-building meeting held in Harrison than it is of what actually emerged from that session. You'll have to read about that as it unfolds as a part of the new examination pilot process.

Here's a list of some important things I've learned as a watchmaker:

Clockmaking is unavoidably dirty. Forget about the finger cots and the surgery room environment. These guys have to work in sludge, sometimes...their fingernails never see a manicurist...they work around big equipment sometimes, and heck, they even have to wear safety harnesses to get to their work if it's suspended in a tower 150 feet above the ground. (I have a picture in my head of Mike Gainey rappelling down the side of Westminster Abbey, for some reason.)

Clock repair can be very dangerous. An exploding spring can imbed a wheel in a wall or saw a finger right down to the bone. I've had a few barrels from 18s Elgins fly around but never one at 1100 fps. Isn't that what some AK47 rounds travel?

Clocks can be really weird contraptions. Some of them use rocks for weights, or mercury for pendulums. Some have "backpainting" that belongs in the Louvre. Cuckoo clocks... good grief! Do these even merit the courtesy of a screwdriver?



Mark Baker, Brien Dews and Mike Gainey.



Jerry Faier and John Bryant.

As for clockmakers as people: as a whole, the ones I've worked with don't seem to be wound as tight (pun intended) as watchmakers, but they can get very contentious, like watchmakers, about certain issues... such as whether to burnish or use polishing grits, or whether to re-bush, or "hole close" (punch). The room gets icy cold when two opposing camps on these issues come together.

All of this makes for an interesting experience when you get a bunch of these guys around a table talking about what they do, the science and the art of it, and what knowledge and skills AWCI should stand for. For example, what disposition should a Certified Clockmaker display when, on a house visit, they are confronted by a Rottweiler who thinks you are about to take away his chew toy, and that maybe you would be a better one?

OK, so a bit of seriousness, now. The Clockmaking Certification group has revamped its *Standards and Practices* and these will have been reposted by the time you read this. In addition, a methodology has been adopted for a "mini-pilot" for the CC exam, and some home (worksite) visits have already occurred.

Several key tasks have been identified by the group which should render information about a candidate for certification, and hopefully give reliable and valid information to trained assessors who will do the scoring. Currently, there are nine tasks being considered for the committee's study. That doesn't mean that if you, gentle reader, wish to become a CC you will have to do nine, but it's possible. Or you could do more. Or less. That's what pilot examinations are for. Do you want a hint about what the tasks will involve? Here's a few (but I bet you could guess them anyway) ... escapements, pivots and bushings, wheel and pinion teeth, springs, manipulating metals, regulating.

No big surprises, right?

Actually everything you need to know about the exam is in the *Standards and Practices.*

The big question of course, as it is with every test you have ever taken, is "what will I need to know." If you are like some students I have had, you might study half the material and hope the exam will be over the half you've studied...play the odds. I can tell you this, it will not be an examination/certification process you will be able to "cram" for. It will require real performance demonstrated before a real person. This has long been the weakness of our examination and can no longer be tolerated if we are to promote the high standards we profess.

Where's Laurie Penman?

Laurie is playing an active part in the committee's work, just in case you are wondering. Laurie has been around AWCI for a while now, and has contributed a great deal to the organization. His input on helping develop not just higher standards, but new standards, has been of great help to the committee. By pushing the ideas around that the committee generates, and giving his unique perspective, he has helped everyone to think more, which is always a good thing when you are trying to "cover all the bases."

And a last word. The names have long been public, but just in case you are wondering who is on the clock committee, here they are again. Jerry Faier (chairman), Mark Baker, John Bryant, Brien Dews and Mike Gainey.

PARTS MESSAGE BOARD

The American Watchmakers-Clockmakers Institute **Parts Message Board** is available on line at **www.awci.com** Click on the Parts Forum in the Top Links box. Guests are free to browse our topics and posts but only validated AWCI members will be able to actively post messages and communicate with one another via private messaging.

The purpose of this board is to aid our members in finding watch parts, clock parts and tools. This board is not open to generic advertising posts; therefore, web addresses and e-mail addresses should not be included in public messages.

2006 AWCI Election Results

The tabulation of ballots in AWCI's 2006 Board of Directors Election is complete. Three directors were chosen from a slate of ten candidates. Those elected to serve three-year terms are: Glenn D. Gardner, James Sadilek and James K. Zimmerman.



Glenn D. Gardner, CMW
Madison, Wisconsin



James Sadilek
Carson City, Nevada



James K. Zimmerman, CMW, CMC, CMEW
York, Pennsylvania

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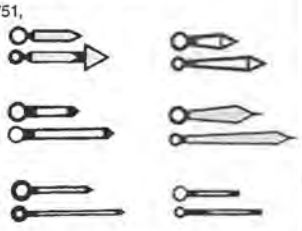


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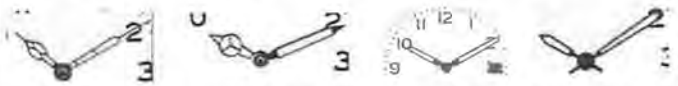
*For Unitas 6497, hole sizes 115/200, Valjoux 7750 & 7751, hole sizes 120/200, and ETA quartz series 251.262 to 251.272, hole sizes 150/200.

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AWCI ACADEMY WATCHMAKING CLASSES

Manuel Yazijian, CMW Instructor

AWCI is offering a series of watchmaking classes throughout 2006 and 2007. The series will consist of 5-day sessions covering a variety of subject matter. Each 5-day block will cost $475.00. For additional information, contact Education Coordinator, Nancy Wellmann nwellmann@awci.com or call (866) 367-2924, ext. 303. Class information is also available at www.awci.com

July 17-21, 2006	Servicing Modern Automatic Watches, Timing & Adjustment
September 11-15, 2006	Vintage Chronographs (Bernhard Stoeber, Instructor)
October 23-27, 2006	Basic Watch Repair, Adjusting and Timing
November 6-10, 2006	Introduction to Basic Quartz Watch Repair & Quartz Chronograph Repair
January 8-11, 2007	Introduction to the Watchmaker's Lathe
February 5-9, 2007	Servicing & Adjusting the Modern Mechanical Chronograph
March 12-16, 2007	Basic Watch Repair, Adjusting & Timing
April 16-20, 2007	Intro to Basic Quartz Watch & Quartz Chronograph Repair
May 7-11, 2007	Servicing & Adjusting the Modern Mechanical Chronograph
June 4-8, 2007	Introduction to the Watchmaker's Lathe
June 25-29, 2007	Precision Timing & Automatics
September 10-14, 2007	Servicing & Adjusting Modern Mechanical Chronograph (Bernhard Stoeber)
October 22-25, 2007	Basic Watch Repair, Adjusting & Timing
November 5-9, 2007	Introduction to Basic Quartz Watch Repair & Quartz Chronograph Repair

(No courses offered in August and December)

AWCI CERTIFICATION EXAM SCHEDULE

Certified Watchmaker & Certified Master Watchmaker

July 24-27, 2006	Saint Paul College	Saint Paul, MN
August 21-24, 2006	AWCI Training Facility	Harrison, OH
September 18-21, 2006	AWCI Training Facility	Harrison, OH
October 2-5, 2006	Oklahoma State University	Okmulgee, OK
January 22-25, 2007	AWCI Training Facility	Harrison, OH
February 19-22, 2007	AWCI Training Facility	Harrison, OH
March 19-22, 2007	AWCI Training Facility	Harrison, OH
April 2-5, 2007	AWCI Training Facility	Harrison, OH
May 21-24, 2007	AWCI Training Facility	Harrison, OH
June 18-21, 2007	North Seattle Community College	Seattle, WA
July 23-26, 2007	Saint Paul College	Saint Paul, MN
August, 2007	TBA	
September 17-20, 2007	AWCI Training Facility	Harrison, OH
October, 2007	TBA	

To register for an exam or for more information contact Education Coordinator, Nancy Wellmann at nwellmann@awci.com or call toll free 1-866-FOR-AWCI (367-2924)

President's Message

(Continued from page 2.)

The Board gambled on hiring a clock repair instructor. The years have proved the Board right on this. Hiring Mr. Penman has allowed us to offer more classes on clock repair, and the classes have been very well received.

Updating our website involved a major investment of money. Through it we have been better able serve the membership; it has brought us new members, and enabled us to offer more member benefits.

New opportunities in watch repair classes are now being realized due to the hiring of Mr. Yazijian. He is also responsible for coordinating our certification programs.

Years ago we realized we needed to "tweak" our certification program. While considering this we discovered something surprising. Outside of our organization these certifications were not being fully recognized. Why? There was a lack of confidence in our testing procedures. The result is that those of our truly qualified certificate holders were not being fully recognized for their abilities. The new program has addressed this and is becoming one of the standard requirements for obtaining parts for some high-grade watch brands.

As my tenure is ending I am proud to have served. While I may never be on the Board again, I shall continue to offer my support and my service on committees as a proud member of the AWCI.

Executive Director's Message

(Continued from page 2.)

presentations should be technical in nature and refer to one aspect of watch or clock repair, not a complete overhaul or restoration.

If you have any questions about volunteering for AWCI please feel free to contact me.

On a different topic, I would like to thank all the companies and individuals that advertise in the *Horological Times*. We are thankful for your continued support. As a member, please be sure to let these folks know that you appreciate their support as well. When you place an order let them know that you saw their ad in the *Horological Times*.

I look forward to seeing you in Seattle August 3rd through the 6th.

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JIDA

7.05 HT

香港貿易發展局
Hong Kong Trade Development Council

Gain a head start to the burgeoning China market at the Hong Kong Watch & Clock Fair (September 6-10, 2006)

Dear AWCI Member:

In co-operation with the American Watchmakers-Clockmakers Institute, the Hong Kong Trade Development Council is pleased to invite you to take part in our upcoming Buyers Mission program to the **Hong Kong Watch & Clock Fair, September 6-10, 2006.**

The Hong Kong Watch & Clock Fair 2006 is the premier showcase for the timepiece industry and the largest fair of its kind in Asia. Over 16,000 visitors from 102 countries came to see the best of what the 768 exhibitors from 17 countries and regions had on offer last year.

As a member of the Buyers' Mission, you will enjoy the following exclusive privileges for you and your associates:

- Complimentary Hotel Accommodation worth up to US$230.00/ HK$1,800.00 from September 5-10, 2006 at selected hotels for first-time visitors to the fair.
- Free access to the Dragon Lounge (complimentary refreshment and beverage, wireless internet service, relaxing area and meeting facilities available.)
- Free admission badge, complimentary fair catalogue and fair information kit
- Invitations to attend the official functions, e.g. opening ceremony, VIP Tour, cocktail reception, seminars, etc.
- Discount coupons for shopping & dining in Hong Kong

The program is available on a first-come, first-serve basis. Buyers are advised to sign up early for the travel and accommodation promotional offers. **Kindly return the Reply Slip to us no later than Friday, July 28, 2006**

For further information, please feel free to contact Ms. Lillian Lee or myself at tel: (312) 726-4515; fax: (312) 726-2441; e-mail: bridget.lee@tdc.org.hk. We look forward to welcoming you at the fair.

Sincerely,

Bridget Lee

Bridget Lee
Marketing Manager, Chicago Office
Hong Kong Trade Development Council

REPLY SLIP

Deadline: Friday, July 28, 2006

To: Ms. Bridget Lee, Chicago Office, HKTDC
Fax: (312) 726-2441; E-mail: Bridget.Lee@tdc.org.hk

U.S. Buyers' Mission to the Hong Kong Watch & Clock Fair - September 6-10, 2006

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- ❑ Please send me more information

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6-10 September 2006

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Jack Kurdzionak, CW

From the Workshop

You Are Invited

Do you have a solution to a watch or clock repair problem that you want to share with our membership? Do you have a question about a repair problem you would like to ask? I invite you to participate in this column with your suggestions, questions, and comments. It is easy. Just e-mail me at AWCI <magazine@awci.com> or write using the old standby known as the postal service. You can even fax me at 513-367-1414.

I will do my best to help you help the membership. By sharing your questions and suggestions, all of our members can benefit from our combined knowledge and experience. The ideas, tools, techniques and products presented in this column suggested by the author and contributing members are not endorsed by any manufacturer, supplier, advertiser or AWCI itself.

Standard Practice

Successful professionals are always open to learning more and continuing their professional education until they retire. Watchmakers, to be successful, have to keep their minds open to new procedures, techniques, equipment, and standards. Would anyone deliberately choose medical treatment at a facility with obsolete equipment and staffed by doctors who refused all continuing education? Of course not, we always seek the best-trained physicians working in the most modern hospitals to provide medical care. Watchmakers are not physicians, but we are professionals in our field. Watch owners, who value their timepieces, bring them to us, the professional watchmakers, who are AWCI members. They expect our shops to meet current standards. Would they bring their valued timepiece to our shop if they thought it would receive substandard care and shoddy workmanship? They would not, and we should not disappoint them.

American watch companies, at one time, dominated the sales and the after sales service for watches here in the USA. They set the standards for workmanship, cleanliness, equipment, etc. They supported independent after-sales service by publishing repair manuals and spare parts lists for their products. They distributed spare parts to independent watchmakers through a network of material dealers. They also provided factory training to watchmakers in the field. Some even supported their own watchmaking schools while others assisted the multitude of independent schools that we had here. As the American watch companies disappeared, other watch companies from Europe and Asia took their place and continued industry support of the American watchmaker. In time, that support gradually eroded away as many of those European companies went out of business and others that remained decided to limit after-sales support for various reasons. American watchmaking schools, which once numbered in the hundreds, dwindled to less than fifteen. During that period of industry contraction, pessimists even forecast the total extinction of the American watchmaker. Those pessimists saw no single company or educational institution strong enough to set new watchmaking standards. For years watchmakers had to work independently without factory-sanctioned continuing education. Even the technical literature used for

training watchmakers was aging and little new material was written during that time.

In the 1990s, things began to change for the better. After a steep decline, mechanical watch sales stabilized and began a period of spectacular growth that continues today. Sales of higher priced quality quartz watches have also increased significantly during this time. Eventually, these watches will need repair. Yes repair, not repair done to mid-twentieth century standards, but to current twenty-first century standards. Although Asian manufacturers now dominate the low priced watch market, most of the higher priced, repairable watches originate in Europe, predominately Switzerland. Swiss manufacturers now recognize that their watch markets around the world (America is one of the largest) require manufacturers' support of quality after-sales service. WOSTEP is just one example of the watch firms' recognition of that need. Watchmakers Of Switzerland Training and Education Program (WOSTEP), supported by many Swiss watch companies, is an independent educational facility with a mission to train watchmakers worldwide. WOSTEP is now an internationally recognized entity that sets the standards for training and equipping twenty-first century watchmakers. The twenty-first century watchmaker understands that some techniques, acceptable in the past, are no longer appropriate. There are new standards of shop organization, cleanliness, and watchmaker procedures that have been developed to meet current factory standards. Here are some recommendations taken from service bulletins of several manufacturers. WOSTEP schools, both here and abroad, require their students to learn and practice these recommendations.

Handling Plates, Dial, Cells, Etc.

Use finger cots while working. Finger cots are elastic covers for the fingertips that prevent the transfer of oil and perspiration from the skin onto the watch parts. They are required for handling movement plates, dials, and power cells. Early watch repair literature always recommended holding watch plates and dials only by touching their edges with clean fingertips. Today, that is unacceptable. Clean finger cots must cover the fingertips when handling dials and movement plates (still only by their edges). Plastic tweezers, non-conductive tweezers, or fingers protected by finger cots are required for picking up watch cells or capacitors. Only the edges of coated, non-reflective crystals can be

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touched with finger cots. The upper and lower crystal surfaces are not to be touched, with or without finger cots.

Keep finger cots clean while being worn. Do not contaminate their surface by touching anything with oil or grease and that includes exposed skin. Even shaking hands with another person can transfer contaminants to finger cots. As soon as the finger cots become soiled, dispose of them and replace them with new ones. Finger cots are available in various sizes to accommodate all sizes of watchmakers. Cots made from latex are the most commonly used, but they are also available in other materials for those watchmakers allergic to latex.

Professional Appearance

Wear professional attire. Recommended attire for watchmakers is a white laboratory coat worn at all times while working at the bench. The lab coat must be lint free, clean, and always buttoned while being worn. Avoid wearing lint-producing clothing such as sweaters. Wedding rings are OK to wear. Remove all other rings and bracelets while working. Loose jewelry can interfere with watch repair.

Use the Proper Tool

Carefully use proper tools when handling watch parts. Handle watch parts with appropriate tweezers or a vacuum pickup system. Never use bare fingers when handling the movement. Pick up delicate parts, such as hands, with a vacuum device or polished tweezers coated with nail polish. Always, even when using coated polished tweezers, pick up the hands by the tube or the unfinished edge. Protect the finished surface of the hands when pressing them home by using plastic tipped pushers. Work on the watch movement while supported in a suitable movement holder. Never place a movement or its parts directly on the bench surface, always place them into a clean tray. Always cover the movement and its parts when the not working on the movement.

Cleanliness

Rodico™ still has a place in the watchmaker's bench, but do not give it too much space or use it improperly. It leaves an undesirable residue when used as a cleaner for watch parts. It also collects contaminants from the fingers and watch parts it has contacted. These contaminants will transfer to any watch parts touched by the Rodico™. It is still the recommended cleaner to remove magnetic particles from the rotors and magnetic parts of watches before cleaning in the Ultrasonic watch cleaner. Use it to remove any particles attached to rotors and magnetic parts after cleaning. Also, use it to dry clean any magnetic parts not cleanable in the ultrasonic machine. All parts cleaned with Rodico™ need final cleaning with a product such as One Dip, after which they are air-dried before installing in the movement. Clear the workbench at the end of each work period and put all tools and unfinished work away. Clean the bench surface each day before beginning any work or after the bench becomes soiled while working.

Never use Selvyt™ or microfiber cleaning cloths to wipe any movement part. Selvyt™ is used to wipe cases and bracelets that have been worn while microfiber cloths can be used to wipe new cases and bracelets or those that have been washed clean.

Organization

The only tools that should be on the bench are those that are being currently used. All others should be put away until needed again. Workbenches, no matter how large, are always too small to accumulate all of the hand tools that are needed for a repair. Frequently used tools are stored near the bench while seldom-used ones are kept farther away. Spare parts are stored in an organized manner. For a small shop a simple envelope system with appropriate labeling will suffice. The spare part inventory list should be kept up to date in a computer file such as QuickBooks™ or similar program used for record keeping. These programs will allow you to maintain a current inventory file and assist with billing and reordering parts.

Rotating Supplies

Oiling cups on the bench are cleaned at least on a weekly basis and are refilled with fresh lubricant. Unused watch lubricants are stored in the fridge until needed. Unused lubricants over two years old are disposed of and replaced. Washing and rinsing fluids in cleaning machines are replaced after being used for a specific number of cleaning cycles (usually between 10-15), regardless of how clean they appear.

The above recommendations are not vastly different than those used by watchmakers in the past. They are extensions and modifications of what was always considered good watchmaking practice.

Jack Kurdzionak

AWCI Academy of Watchmaking Needs Chronograph Movements

THE AWCI ACADEMY OF WATCHMAKING is in need of the following chronograph movements to be used for training or for spare parts during training.

- Lemania 1873 or Omega 861 (or derivatives)



- Dubois-Dépraz 2000 or Omega 3220 (or derivatives) (modular chronograph)





- ETA 7750 (formerly known as Valjoux 7750)



You may send the above-mentioned movements to the attention of the AWCI-ELM Charitable Trust. The AWCI-ELM Charitable Trust is an IRS recognized 501(c)3 organization. All donors will receive a letter from the ELM Trust acknowledging your donation. This acknowledgement letter may be used for tax purposes.

Your donations will be greatly appreciated by AWCI and future generations of watchmakers.

Please send your movement donations to the address below.

AWCI-ELM Charitable Trust
c/o Manuel Yazijian, CMW
701 Enterprise Drive,
Harrison, OH 45030
USA

Questions & Answers

(Continued from page 4.)

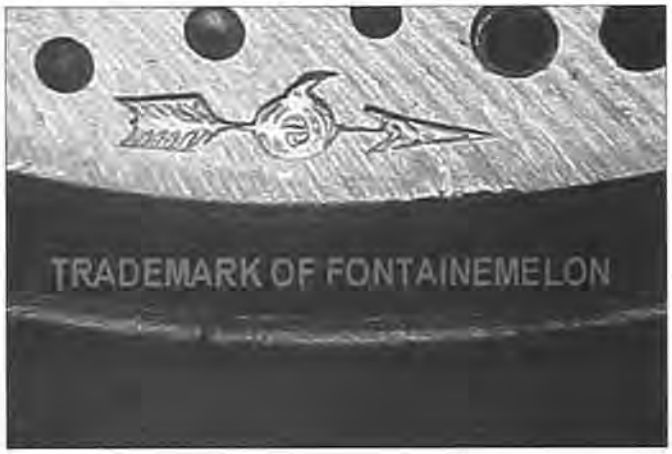
cover) the watch was intended for the French-speaking market (France, Switzerland, Belgium, Canada to mention a portion of that market). The lady's head on the cuvette (the profile of Helvetia) is the Swiss casemark for 18K gold items made in Switzerland.

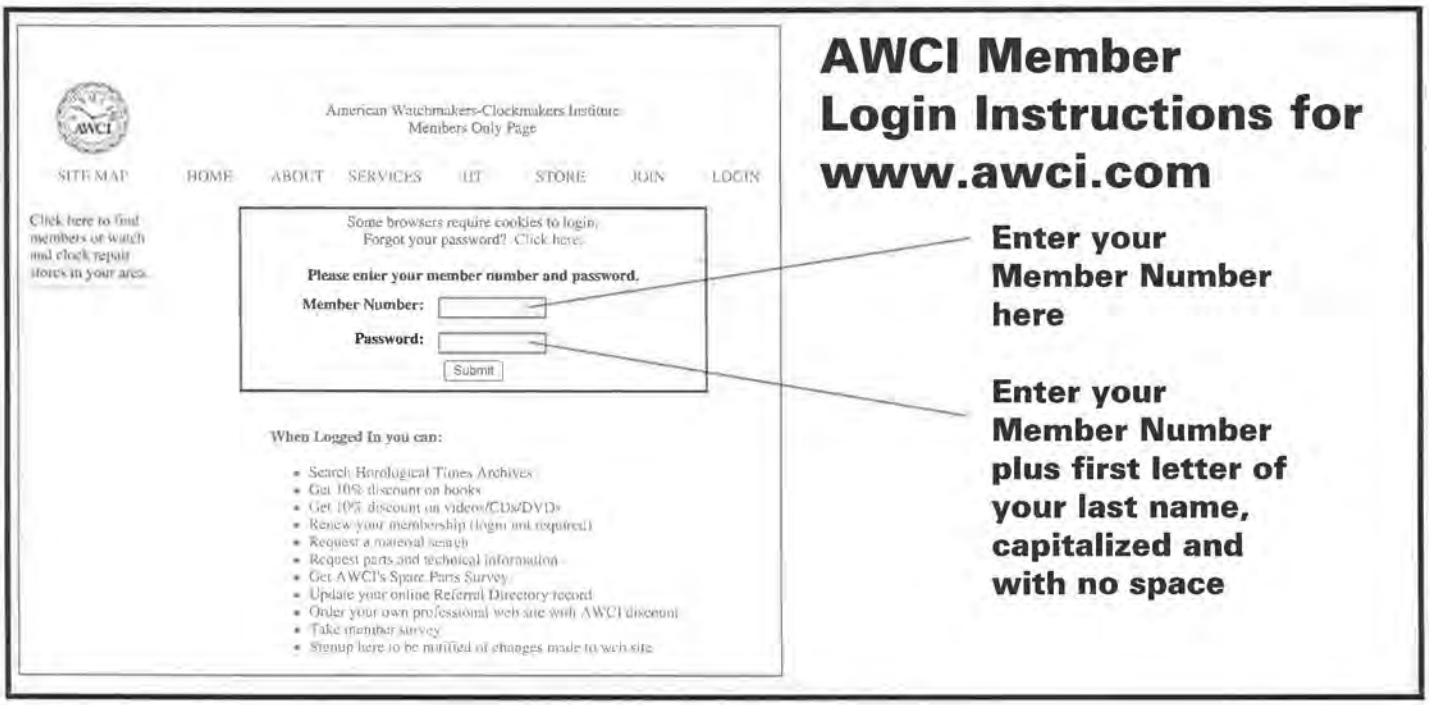
The movement is a very well made 24 jewel, 19 ligne jeweled lever movement, made by the Fabrique d'Hologerie de Fontainemelon (FHF). The trademark was issued on July 25, 1922, for blank movements by FHF. Yet by 1920 FHF was selling nickel or gold-plated movement kits (complete movements) rather than the usual ebauche (or blank movement). FHF was one of the three founders of Ebauches SA, the holding company that led the Swiss manufacturers out of the depths of cutthroat competition between the many ebauche makers of the 1920s and 1930s.

Your movement is an early example of a completely machine-manufactured movement made, interestingly enough, on machines purchased from American watch tool makers by FHF. Your movement would have been made between 1922 and 1937 when FHF changed their trademark to the more familiar double FF in a shield. From the style of the movement I would say yours was made in the early 1920s.

To my thinking, the watch is well worth repairing the case hinge.









AWCI Home Study Course in Clock Repair

Based on the original correspondence course written and administered by Laurie Penman, AWCI's resident clock instructor, this course is constructed to provide information and instruction in a manner that is immediately useful in both learning and practicing clock repair. The course contains 16 lessons. At the completion of each lesson you will receive comments and suggestions from Laurie Penman, and a pass or fail grade. Those who achieve a pass grade in each section will receive a certificate of completion. Mr. Penman will be available to answer questions or offer suggestions to each student.

The AWCI Home Study Course in Clock Repair package contains all the material and information necessary to successfully learn the fundamentals of clock repair, including *The Clock Repairer's Handbook* by Laurie Penman and a one-year subscription to Steven G. Conover's monthly publication, *Clockmaker's Newsletter*. Course participants will be invited to attend a 2-day meeting at AWCI to confer with Mr. Penman and meet other students.



AWCI Members - $750

Non-members - $835

Contact Nancy Wellmann, AWCI Education Coordinator
E-mail: nwellmann@awci.com
Phone Toll Free 1-866-367-2924 ext. 303 or (513) 367-9800

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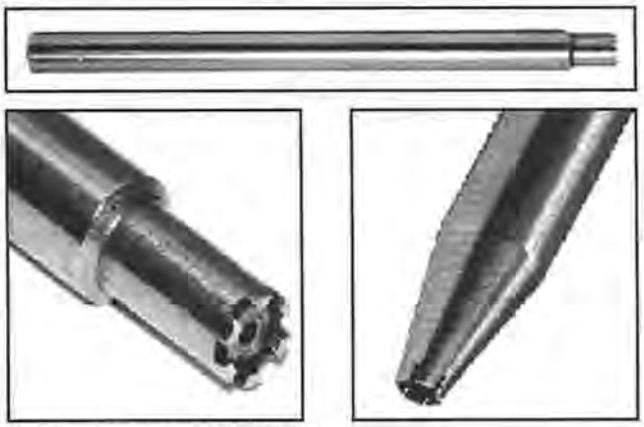
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Laurie Penman

Height Finder for a Center Lathe

The center height of the turning tool is a major factor in turning well or badly on the lathe. When using a graver (watchmaker's lathe) centering is done by hand and is continuously adjusted, but on a center lathe the tool is fixed and must be correctly centered to start with. This simple tool provides an easy method of setting the height of the tools held in the tool post.

Turning on the outside of the work piece requires the tool to be "on center" as I have just said, but when boring out inside diameters it is best to set slightly above center, this is to ensure that if the tool point "dips" under the cutting pressure, it will lessen the depth of cut rather than increasing it.

You will need a magnetic base to make the tool easy to use (it avoids having to press the base firmly onto the lathe bed), these can be bought for around $16. Measure the screwed hole (for attachments) and make sure that you have a die that will produce a matching thread.

The materials needed are a length of free-cutting brass ¾" diameter (or thereabouts), drill rod of ¼" diameter and the magnetic base. The length of the brass is not quoted because it will depend on the dimensions of the base and the height of the lathe centers. Cut the brass off to the length that is needed for your lathe and the magnetic base, not forgetting to allow for the length of the thread at the bottom of the brass column. Turn the end of the brass to a diameter that is 90% of the nominal diameter of the thread (Figure 1). If you angle the point of the lathe tool towards the work you will produce a "dished" shoulder and when the column is screwed into the base it will register on its largest diameter and lock firmly and perpendicular to the top of the magnetic base.

Figure 2 shows the setup for threading on the center lathe. The die is located on a short taper on the turned brass and is held square to the work by pressing the end faces of the drill chuck jaws against the back surface of the die. The handle of the dies stock rests on the bed and while one hand rotates the chuck the other keeps the drill chuck pressing against the die.



Figure 1

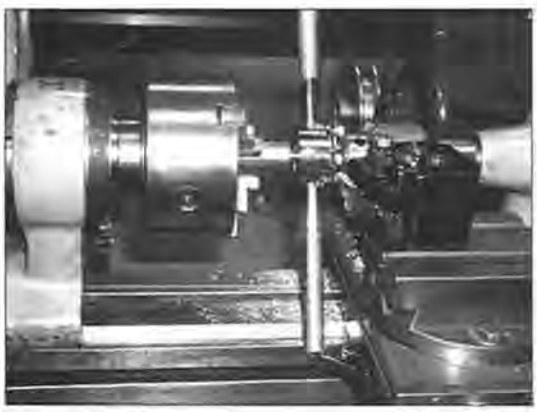


Figure 2

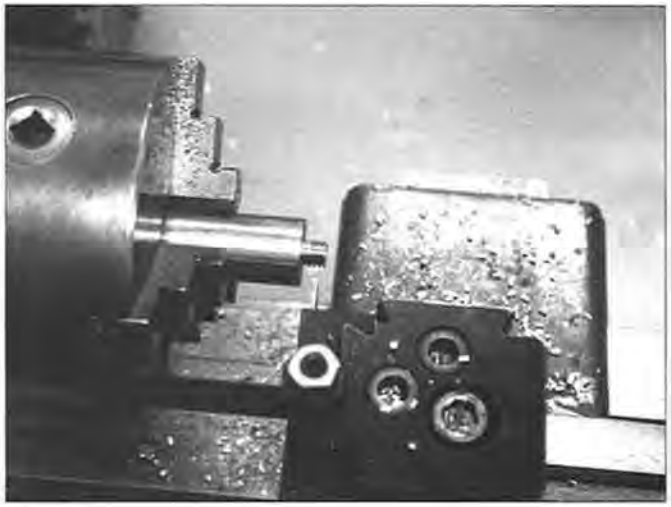


Figure 3

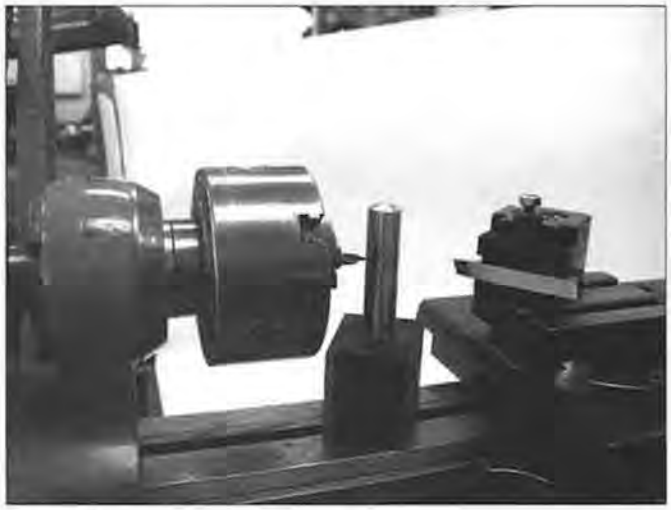


Figure 4

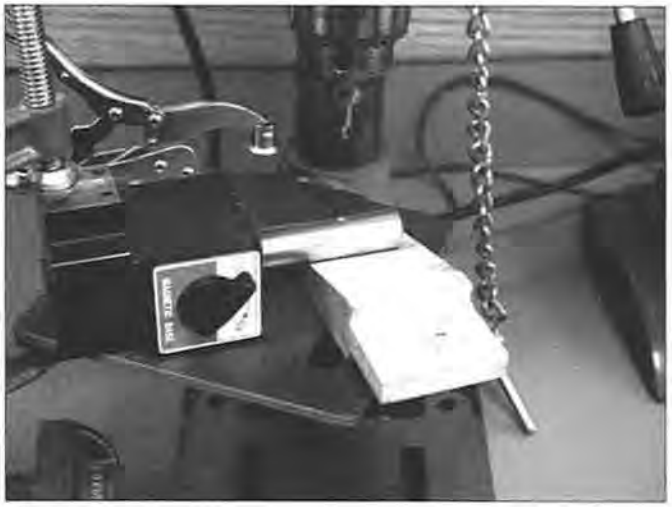


Figure 5

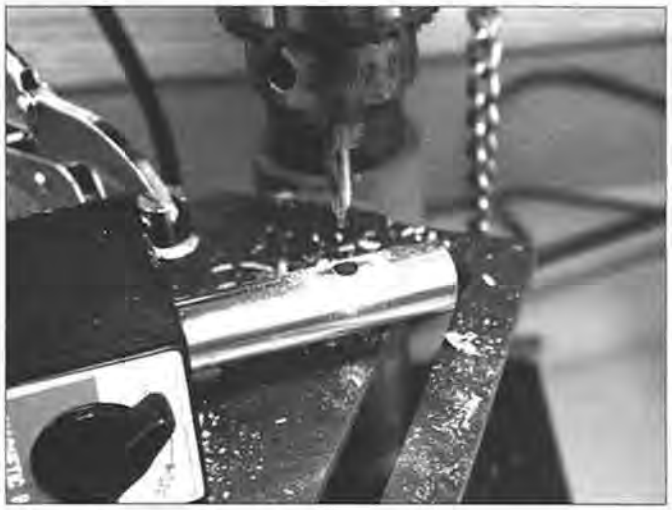


Figure 6

To make sure that the dished shoulder is drawn tightly against the upper surface of the magnetic base when it is screwed in, use a parting tool (Figure 3) to "clear" the thread close up to the shoulder. The parting tool should be used to make a groove about one thread pitch wide and the depth of the thread.

Make the rod look pretty (good looking instruments always work better than ugly ones) by rounding the top of the column and polishing the surfaces, and then screw it into the base. Use a center bit in the lathe chuck to drill a spot on the column. You do this by locking the magnet down and then bringing the saddle up to it (Figure 4), proceed to slide it along the bed with the pressure of the saddle. It is only necessary to obtain a spot. A good sharp center bit will do this without any support other than the draw of the magnet. For the rest of the drilling you will need to set the assembly on the table of a drilling machine.

Support the underside of the brass column (Figure 5) and drill right through it with a ¼" diameter center drill. This will produce a hole that is a tight fit on the ¼" drill rod that we will be fitting later (Figure 6); it will also be slightly tapered allowing you to obtain a friction fit in the column.

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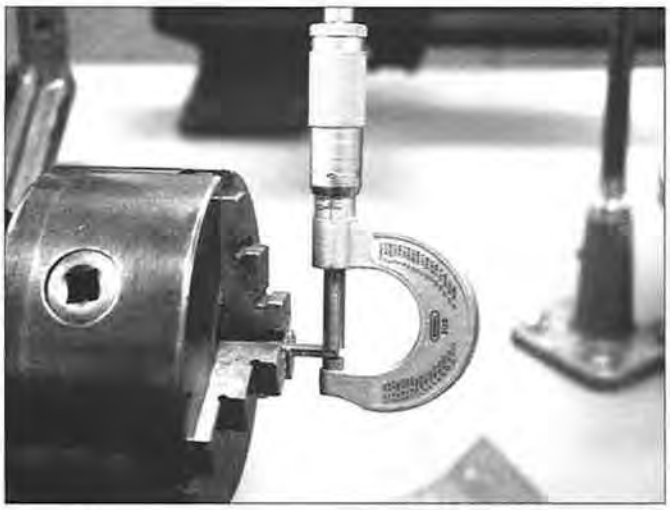


Figure 7

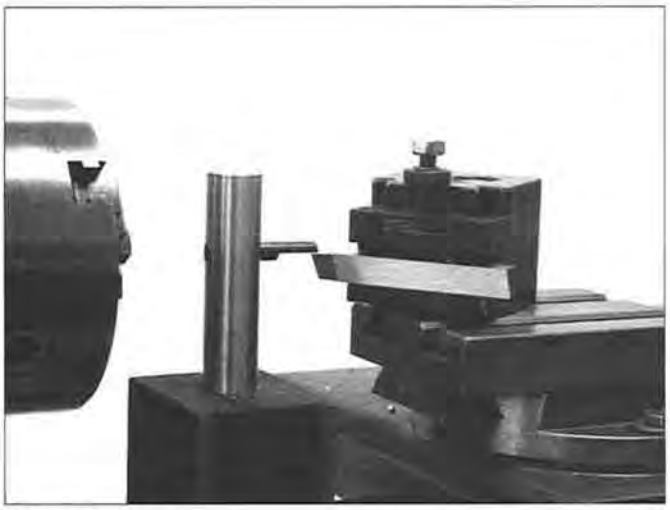


Figure 10



Figure 8



Figure 11



Figure 9

The indicating bit is made from ¼" diameter drill rod about 3" long that has been filed in the lathe chuck until the flat produced is an exact half cylinder. This requires you to file flat and to control the surface produced so that it is parallel to the original diameter of the rod. Check that this is so by using a micrometer (Figure 7).

This indicating bit needs to be hard, so that it is not modified in use when coming into contact with High Speed Steel (HSS) tool bits. Cut the finished indicator off the rod; it needs to be about ¾" along its unfiled diameter. Lightly chamfer all edges and then heat it in a gas torch flame to cherry red, allow it to soak for half a minute and then quench in oil. This will also "oil black" the piece, which makes for a rust resistant and attractive finish. Clean the oil off and then draw the flat over a medium fine slip stone to brighten the flat (Figure 8) and make sure that it is flat and smooth.



Figure 12

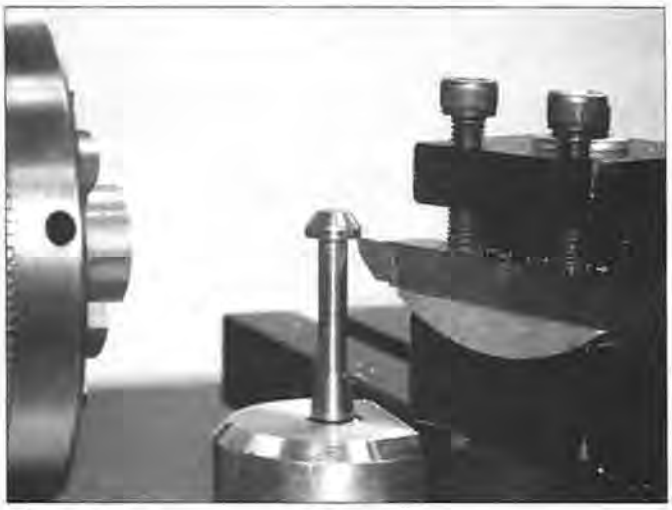


Figure 13

The indicator should now fit tightly into the hole in the brass column and hold in there securely (see Figure 9). Twist it until the flat is parallel with the surface of the lathe bed. In use the instrument is placed on the lathe bed and the tool adjusted until it just touches the flat (see Figure 10). Keep an eye on the tool tip because it may dip when you tighten the tool post screws. The solution is to tighten gradually and lightly tap the tool into position with a piece of brass.

This height finder is too large for use on lathes like the Sherline (the magnet alone is too big to fit comfortably on the bed) and so Figure 11 shows the parts for a simpler version. It does not have the positive "pull down" to the bed that the first has, but that is no real problem. The round base is made of brass and is hollowed out on the underside to make it simpler to avoid having dirt under it. In the foreground the steel stalk is shown, rough turned where it will drop into the base and with a mushroom head to locate the lathe tool under. A flat will be made on this base so that it can be placed closer to the lathe tool point.

Figure 12 shows a piece of brass that has been roughly faced to prove the accuracy of the lathe tool setting. (It should be dead center of course.)

Once the tool is satisfactorily set on the lathe center line, it can be used to finalize the setting of the center height gauge (Figure 13).

The steel stalk was machined so that it was very nearly correct and then made a loose fit in the base. When it has been slid into the base and the underside of the head is resting on the tool tip, Loctite 609 was used to lock it in place. You can see that the base has had a large flat sawn and filed to enable the gauge to reach the tool tip without needing to swivel the tool post a great distance.



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There are so many wonderful opportunities for spouses and families during your stay in Seattle. So that you can plan ahead we are suggesting two trips that might be of interest to you. The first Thursday of every month the Museum of Flight is open from 5:00 PM until 9:00 PM free of charge. If you don't have a rental car you could take the airport shuttle to the airport and catch the 174 Metro bus to the museum.

My personal favorite side trip would be a trip into downtown Seattle to shop, walk on the pier, visit Ye Olde Curiosity Shoppe, see the Seattle Aquarium and experience Pike Place Market. From downtown you can take the monorail to Seattle Center and the Space Needle, the Experience Music Project and so much more. To get there from the Marriott Seattle Sea-Tac Airport Hotel you can take the shuttle which costs $12 roundtrip or the airport shuttle to the airport and catch the metro express bus #194. This trip could be done either Thursday or Friday if you have most of the day. If you are interested in either of these trips let us know when you register and we will help you plan your experience. See you in Seattle!

Merrianne Door











AWCI 46th Annual Meeting Agenda

Thursday, August 3, 2006

9:00 AM - 4:00 PM	Chronometer Club Introduction to Precision Timing by Antoine Simonin
3:00 - 6:00 PM	Registration
4:00 - 5:00 PM	Chronometer Club Business Meeting
6:30 - 7:30 PM	New Member & Welcome Reception
7:30 - 8:30 PM	Affiliate Chapter Welcome Reception
8:30 - 10:00 PM	Affiliate Chapter Orientation

Friday, August 4, 2006

7:00 AM	Registration
7:00 AM	Continental Breakfast
8:00 AM - Noon	Affiliate Chapter Meeting Antoine Simonin - Keynote Speaker
9:00 - 10:00 AM	J.M. Dodson Perpetuation Fund Meeting
10:00 AM - Noon	Industry Advisory Board (IAB) Meeting
Noon - 1:30 PM	Lunch on your own
1:30 - 5:00 PM	AWCI Board of Directors Meeting
5:30 PM	Bus departs for the ELM-Trust Dinner/Fundraiser
6:00 - 10:00 PM	ELM-Trust Dinner/Fundraiser on the *Spirit of Washington Dinner Train*
10:00 PM	Bus returns to the Marriott

Saturday, August 5, 2006

7:00 AM	Registration
7:00 AM	Continental Breakfast
8:00 - 9:30 AM	Educational Presentations
Jack Kurdzionak	The Professional Watchmaker; Behaviors, Practices and Certification

Saturday, August 5, 2006 (continued)

Antoine Simonin	The Escapement & Oiling Procedures
Bob Macomber	Antique American Wooden Clocks - Making and Installing Bushings
9:45 - 11:15 AM	Educational Presentations
Ed Ueberall	Railroad Pocket Watches
Brien K. Dews	Electric Clocks and the Telechron Company
Vince Schrader & Jerry Faier	Jointly present on Certification (watch and clock)
10:00 AM	ELM Trust Meeting Atrium 5
10:00 AM - 3:00 PM	Trade Fair Plaza Mall
11:30 AM - 1:30 PM	Vendor-Sponsored Luncheon Buffet
1:30 - 3:00 PM	Educational Presentations
Brien K. Dews	Electric Clocks and the Telechron Company
Antoine Simonin	The Escapement & Oiling Procedures
Bob Macomber	Antique American Wooden Clocks - Making and Installing Bushings
3:15 - 4:45 PM	Educational Presentations
Ed Ueberall	Railroad Pocket Watches
Jack Kurdzionak	The Professional Watchmaker; Behaviors, Practices and Certification
Vince Schrader & Jerry Faier	Jointly present on Certification (watch and clock)
6:00 - 7:00 PM	President's Reception (After Five Attire)
7:00 - 9:00 PM	Dinner & Awards Program

Sunday, August 6, 2006

8:00 - 9:00 AM	Breakfast Buffet
9:00 AM - Noon	AWCI Board of Directors Meeting

AWCI reserves the right to change the convention program as needed.

Hospitality Room open to all - Evenings throughout the event

AWCI's 46th Annual Meeting — August 3-6, 2006

AWCI Registration Deadline: July 15, 2006

Registration also available on line: **www.awci.com**

(Please type or print all information requested)

Name:_____ AWCI Member No.:_____

Company/Affiliate Chapter:_____

City:_____ State/Province _____ Zip/Postal Code _____

Phone:_____ Fax:_____

E-mail:_____

Spouse's Name:_____ Guest's Name:_____

Child #1: _____ Age: _____

Child #2: _____ Age: _____

Child #3: _____ Age: _____

Registration Fees	Received by July 1, 2006	After July 1, 2006
Weekend Package*		
AWCI Member	_____ @ $250.00	_____ @ $300.00
Nonmember	_____ @ $300.00	_____ @ $350.00
Spouse/Guest	_____ @ $150.00	_____ @ $200.00
Children (under 12)	_____ @ $ 50.00	_____ @ $100.00
Saturday Package**		
AWCI Member	_____ @ $200.00	_____ @ $250.00
Nonmember	_____ @ $250.00	_____ @ $300.00
Spouse/Guest	_____ @ $ 75.00	_____ @ $100.00
Education Package***		
AWCI Member	_____ @ $150.00	_____ @ $200.00
Nonmember	_____ @ $200.00	_____ @ $250.00
ELM Trust Dinner - Friday Night (Not included in weekend package)	_____ @ $ 65.00 per person	

Total _____

Should we be aware of any personal health issues you have?_____

Do you prefer vegetarian meals? _____

***Weekend Package Includes:** Thursday: Welcome Receptions and Affiliate Chapter Orientation; Friday: Continental Breakfast, Affiliate Chapter and Board Meetings; Saturday: Continental Breakfast, Technical Presentations, Luncheon, Dinner/Awards Program, and Auction; Sunday: Breakfast Buffet

****Saturday Package Includes:** Saturday: Continental Breakfast, Technical Presentations, Luncheon and Dinner/Awards Program, and Auction

*****Education Package Includes:** Saturday: Continental Breakfast, Technical Presentations & Luncheon

Note: Program changes will be announced as they occur.

❑ Check ❑ American Express ❑ Discover ❑ MasterCard ❑ Visa ❑ Diner's Club

Name on Card _____

Account # _____ Expiration Date _____ Signature _____

Please make checks payable to AWCI. All fees must be paid in advance; credit cards will be processed upon receipt. Payment in U.S. Funds, drawn on a U.S. Financial Institution. No refunds for cancellations after July 15, 2006.

AWCI's 46th Annual Meeting
701 Enterprise Drive Harrison, OH 45030
Toll Free 1-866-367-2924, ext. 301 Fax: 513-367-1414 E-mail: orders@awci.com

2006 Educational Symposium

The Saturday Educational Symposium, August 5th from 8:00 AM until 4:45 PM features:

Mr. Antoine Simonin is coming from Switzerland where he was the Director of WOSTEP (Watchmakers of Switzerland Training and Educational Program) from 1976 until 2003. He is now consultant to Rolex Geneva as an adviser and coaches teachers in watchmaking schools in the USA and Japan. At the same time, he is busy as a member of the committee of the Musee International d'Horlogerie in La Chaux-de-Fonds and the Horological Museum of Le Locle, Honorary President and on the Board of Chronometrophilia, the watch and clock collectors association of Switzerland. Mr. Simonin is a:



- Well-known expert in the Swiss Watch Industry
- Teacher in watchmaking
- Specialist in old and new horological books
- Expert on old timekeepers and horological books

Mr. Simonin's presentations on Saturday will cover The Escapement and Oiling Procedures. You won't want to miss this opportunity to learn from an expert, and, speaking of experts, we have several others who are specialists in their field. Check the Annual Meeting Agenda and make your reservations now at the **Marriott Seattle Sea-Tac Airport Hotel**

Phone: Reservations (800)228-9290 or (206) 241-2000; Guest Fax (206)248-0789; www.seattlemarriottseatac.com

Hotel Cut-Off Date: Monday, July 3, 2006 - to receive the $105 rate and be included in the AWCI block of rooms. Don't forget to mention you are with AWCI.

Meeting registration on-line at www.awci.com



Bob Macomber, CMC
Antique American Wooden Clocks - Making and Installing Bushings



Vince Schrader, CMW



Jerry Faier, CMC

Vince & Jerry jointly present on AWCI Certification



Ed Ueberall
Railroad Pocket Watches



Jack Kurdzionak, CW
The Professional Watchmaker: Behaviors, Practices & Certification



Brien K. Dews, CC
Electric Clocks and the Telechron Company

AWCI-ELM Trust Welcomes You ALL Aboard!



The AWCI Educational, Library and Museum Charitable Trust (ELM Trust) will host a Friday night to remember. Leaving the Sea-Tac Marriott hotel on Friday, August 4th at 5:30 PM, participants will be whisked away in a Grey Line premium charter coach for a six-mile trip to Renton, Washington. Once there, you will board the *Spirit of Washington Dinner Train* (www.spiritofwashingtondinnertrain.com). This event is sponsored by Rolex.



You are going to see Lake Washington, a fresh water lake connected to Puget Sound, Mercer Island, Wilburton Trestle with a final destination being Columbia Winery. During this scenic ride you will be served a choice of prime rib, pork osso buco, breast of chicken, cherry smoke roasted salmon, vegetarian or children's meals.





No winery tour is complete without some wine tasting and you will be able to sample and purchase vineyard designed Cabernets, Merlots, and other of classic European varietal wines of the highest quality. The winery occupies a magnificent Victorian style building in the countryside. It features a tasting room, gift shop and a banquet room. Swatch will be sponsoring transportation during the convention.



AWCI's 46TH ANNUAL MEETING

AUGUST 3-6, 2006

VENDOR REGISTRATION

DOOR PRIZE – ELM TRUST DONATION

The American Watchmakers-Clockmakers Institute would like to invite your participation in the AWCI 46th Annual Meeting & Convention at the Sea-Tac Marriott Airport Hotel in Seattle, Washington. Exhibitors may reserve a table for $225 for Saturday, August 5, 2006 from 10:00 AM to 3:00 PM This will also entitle two people to have lunch and dinner with the convention attendees. Deadline for vendor registration is July 1st, 2006.

Company Name _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

E-Mail _____

❑ Please reserve _____ table(s) for us to exhibit during the AWCI 46th Annual Meeting.
The following people will be attending:

Name _____ Title _____

Name _____ Title _____

Name _____ Title _____

❑ A door prize will be sent to AWCI for the drawings held during the Trade Fair and at the close of the convention. This entitles our company to be listed as a convention sponsor.

The generous financial support of persons interested in preserving the past and building the future of horology augments the AWCI-ELM Charitable Trust. Your donation will contribute to the education of the next generation of watchmakers and clockmakers or to maintaining the historical record of the craft.

Please accept this donation of $_____ to the AWCI-ELM Charitable Trust

Payment Method:

❑ Check ❑ American Express ❑ Discover ❑ MasterCard ❑ Visa ❑ Diner's Club **Total** _____

Name on Card _____

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COMMITTEE VOLUNTEERS

Immediately following the AWCI Board of Directors annual meeting, the President of AWCI will appoint committee members for fiscal year 2006-2007. AWCI relies heavily on its committees to establish and implement goals for the year. If you have time and talent to spare, consider volunteering to serve.

The committees listed below are those which are currently established in either the AWCI Constitution or Bylaws. Please indicate the committee(s) for which you are qualified. Please number them in the order of preference.

___ Constitution & Bylaws Committee

___ Finance Committee

___ Nominating Committee for AWCI Board of Directors

___ Education Committee

___ *Horological Times* Committee

___ Book Review Committee

___ Membership Committee

___ Convention Committee

___ Publicity Committee

___ Honor Awards Committee

___ Strategic Action Committee

___ Ethics Committee

___ Watch Product Review Committee

Name _____ AWCI Membership No. _____

Spouse's Name _____

Address _____

City _____ State _____ Zip Code _____

Phone (home) _____ (business) _____

Fax _____ E-mail _____

Please give a brief explanation of your qualifications to serve on the committee(s) selected

_____

_____

_____

_____

Return this form to AWCI, 701 Enterprise Drive, Harrison, OH 45030
E-mail: jlubic@awci.com or fax to (513) 367-1414

Horological Times Writers' Guidelines

The *Horological Times* is the official publication of the American Watchmakers-Clockmakers Institute. Published monthly, each issue contains features written by recognized experts dealing with the techniques of servicing and repairing watches and clocks; the uses of shop tools and equipment; and the functional characteristics of mechanical, electronic, and antique timepieces. Additional monthly editorial copy includes book reviews, workshop tips and industry news.

Suppliers from throughout the industry advertise monthly in *Horological Times*. This, combined with a large classified ad section, provides a great resource for all horologists.

Who is this guide for?

This guide is for anyone who would like to publish their work in the *Horological Times*.

What type of material do we want in the HT?

Horological Times is pleased to consider material relating to any aspect of horology or allied subjects which may be of interest to the readership. Both practical and theoretical articles are welcomed, as are reviews of equipment, books, etc.

Writing Style

Horological Times is aimed at professional horologists with a wide range of skills and interests. Good use of photos and illustrations is particularly appreciated.

Length

Articles of any length will be considered. Even very short articles are welcome. Note that long articles may be split into installments and the author will be contacted if this is necessary.

Rejections

New and established writers are encouraged to contribute to the *Horological Times*. Material may be returned to the author if it needs further development or if the subject matter is not of sufficient interest to the readership. Material which may jeopardize the interests of the Institute or its members will normally be rejected.

Review Process

All material received will be reviewed by the *Horological Times* Advisory Committee prior to publication. The editor will acknowledge receipt of material submitted for publication. The article will then be sent to the *HT* Advisory Committee for the review process. All reviews will be completed within two weeks of receipt.

Editing

Horological Times reserves the right to make editorial changes to the material submitted. This may be to improve clarity, or for technical reasons relating to the layout of *Horological Times*.

Author's fee

Horological Times pays all authors. Pay is based on article content, length and illustrations. Executive Board Messages, Letters to the Editor, Affiliate Chapter Reports, Industry News, etc., are not paid submissions.

How to submit material

Please submit your article electronically in any format readable by Microsoft Office. Text and illustrations should be sent as separate files – please do not merge illustrations into the text. Photos and bitmaps should be provided as a TIFF or JPEG of sufficient resolution to provide 300dpi at the size likely to be printed. Photos should be as clear and as uncluttered as possible. Diagrams should be in a format readable by Adobe Photoshop 7.0. All submissions should be accompanied by a hard copy.

Publication date

It is not normally possible to guarantee the publication of an article in any given month. This is because the amount of editorial work varies. Some articles need to be reviewed, and some may need editorial changes. The editor may also wish to contact the author to discuss the article. The editor is always pleased to discuss publication dates.

Submissions

Please send your submissions to: *Horological Times*, 701 Enterprise Drive, Harrison, OH 45030; E-mail: dbaas@awci.com; Phone 1-866-367-2924, ext. 307 or 513-367-9800.

Visit www.awci.com, click on *HT* and then Writers' Guidelines for more information.

Minnesota Watch & Clockmakers Association Convention

Wes Cutter

The Minnesota Watch & Clockmakers Association Convention was held on April 29, 2006 at the Eden Prairie Hilton. It was a rainy day but it didn't dampen the spirits of the happy people who showed up for the 80th annual convention.

Once again the support we are receiving from our vendors who supply us is amazing and everyone walked away with 3 or 4 door prizes including a fabulous prize of a cleaning kit with solution, extra baskets, and an ultrasonic cleaner from one vendor.

We had a great group of speakers that kept us entertained and helped us become better educated.

Raymond Flood talked about specialized tools he has made to torsion test springs for clocks, and a photo cell counter for beats of clocks, and special cutting broaches and punches for bushing clocks. Go to www.mwca.us <http://www.mwca.us/> to see actual plans and pictures of what he was showing.

Leonard Karter talked about watch investigation and what to notice and look for when checking in watches.



Wes Cutter congratulates Leonard Karter on receiving Horologist of the Year 2006.

He had samples to show and talk about and had all the participants write down what they saw and then talked about what they could have seen. His time went by so quickly that he only got about half of his talk completed and people were very happy with the questions and answers they received.

Randahl Strand is an accountant and lawyer and talked about the various types of incorporations and business types. He had a great grasp on what you needed to know and in fact several of the participants have changed their corporation type after his lecture. His biggest laugh and the one we liked the most was when he explained the difference between straight-faced deductions and the ones where you burst out laughing when you try to explain to the IRS.

Joe Juaire talked about the new vector lathes that they are using in the WOSTEP program at Saint Paul College, and what can be done with these high-precision pieces. Again, it is incredible what a good precision tool can do and the attachments and parts were a wonder to behold.

The BIG surprise for this year was the great honor we had in presenting Leonard Karter with the award of Horologist of the Year for 2006. Leonard was a 1973 Graduate of the Watch Program at Saint Paul College. He is a Certified Watchmaker and was trained by Rolex and has became the foremost authority in Rolex in the surrounding 5 states and probably 10 states (in our opinion) on Rolex watch service and repair. In 2004 he was a tremendous help in smoothing the way for the Grant from Rolex to Saint Paul College, and in fact was probably the biggest reason for the success in securing the grant of a million dollars paid over 5 years. Leonard also has mentored countless professionals including some of the "names" we have in the profession today. We are very lucky to have someone like him in our profession and were very glad to honor him at the convention.

Final Note: Do you realize that there are approximately 3,800 watch professionals to service the 22,000,000 high-end mechanical watches (like Rolex®, etc.) that have been sold in the USA in the last 20 years? Let's see, that is 5,789 watches apiece for the next 20 years.

2006 North Carolina Watchmakers Association Convention

July 14-15, 2006

Homewood Suites by Hilton
201 Centreport Drive, Greensboro, NC 27409
www.homewoodsuitesgreensboro.com
Phone 336-393-0088 to make reservations

Friday, July 14, 2006
AWCI One-Day Bench Course
ETA/Valjoux 7750/7751 Chronograph
by Manuel Yazijian, CMW
AWCI Watchmaking Instructor/Certification Coordinator

Saturday, July 15, 2006
Drill Making, Repivoting and Polishing
by Dale LaDue, CMW

Horological Collections, Tours & Personalities
by Harry Blair

Sunday, July 16, 2006
NCWA Annual Summer Auction
Airport Holiday Inn - Greensboro, NC
Setup: 8:00 AM
Auction: 11:00 PM

For more information contact:
Mack Shuping at 336-287-8402

American Watchmakers-Clockmakers Institute

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6319 W. 110th Street, Overland Park, Kansas 66211
Phone: (913) 341-2868 Toll Free: (888) 450-3040 Fax: (913) 341-2803
Email: help@associationpros.com
Website: www.associationpros.com/assoc/AWCI

Association Health Programs

BULLETIN BOARD

RESPONSES

Levin's Pivot Polisher & Straightener
Charles Dietzel, Alexandria, VA, has responded to a request from George Davis, Richland, WA, for a copy of the parts list and user manual for Levin's pivot polisher and straightener Cat. #P500.

ITEMS STILL NEEDED

Federal Glass Crystal Catalog
Michael Doyle, Sacramento, CA, is looking for a catalog for Federal Glass Crystals.

File Rest
John Schwartz, Sarasota, FL, would like to purchase a file rest.

Sir Francis Drake Falling Ball Clock
Gordon Beach, Yuma, AZ, is looking for technical/parts information for a Sir Francis Drake Falling Ball Clock, 1981, made in England.

Do you have information regarding this month's requests? Do you need information about one of this month's responses? If so, send your information or requests to:

Horological Times Bulletin Board
701 Enterprise Drive
Harrison, OH 45030-1696
Toll-Free: 1-866-367-2924, ext. 307
Phone: (513) 367-9800
Fax: (513) 367-1414
E-mail: dbaas@awci.com

AWCI Member Websites

- **Have you always wanted a website for your business, or are you unhappy with your current website?**
- **Do you feel that your business needs more exposure to your customers?**
- **Do you want a website, but don't know where to start, and assume it would be a costly venture?**
- **Do you just not have the time to mess with it?**

Go to

awci.companysitecreator.com

AWCI and Companysitecreator have worked together to offer an opportunity to all members!

It literally takes just a few minutes to build your new site in 5 simple steps from start to finish.

Two packages are offered ($8.95 per month or $18.95 per month), and you are able to see your site before you decide to purchase.

AWCI's Fiscal Year End

AWCI's fiscal year end is June 30, 2006. Those parties who have provided goods and services to AWCI up to and including June 30, 2006 must submit those claims or invoices to AWCI no later than July 15, 2006. 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 Directors' E-mail Address Directory

Director	AWCI E-mail Address
Jim Door: President	jdoor@awci.com
Mark Butterworth: 1st Vice President	mbutterworth@awci.com
Dennis Warner: 2nd Vice President	dwarner@awci.com
Alice Carpenter: Secretary	acarpenter@awci.com
James Zimmerman: Treasurer	jzimmerman@awci.com
Mark Baker	mbaker@awci.com
Gene Bertram	gbertram@awci.com
Matt Henning	mhenning@awci.com
Roland (Ron) Iverson	riverson@awci.com
Gerald Kincaid: Affiliate Chapter Director	jkincaid@awci.com
Doug Thompson: REC Director	dthompson@awci.com
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AWCI Material Search

EDITOR'S NOTE: If you can supply any of the items listed here, please send details to the AWCI Material Search. **Do not send the items to AWCI.** Members requesting these items will be advised of their availability, and will contact you directly.

1I3 Coppel 17 ligne *pallet fork*

If you can supply any of these items please contact: AWCI Material Search, American Watchmakers-Clockmakers Institute, 701 Enterprise Drive, Harrison, OH 45030-1696. Toll Free: 1-866-367-2924, ext. 305; Phone: (513) 367-9800, Fax: (513) 367-1414 or E-mail: mhuff@awci.com

The American Watchmakers-Clockmakers Institute maintains this unique member service to assist professionals in replacing hard-to-find parts for vintage timepieces. There is a fee of $10.00 for each search.

The AWCI Material Search first contacts several dozen material houses and outlets on behalf of the member to determine if the missing part is available from any commercial source in the United States or Canada. If the part cannot be found, the search will be listed in the *Horological Times*.



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For more information, call Intercorp at 800.640.7601, or download the application form from the AWCI web site at www.awi-net.org.

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New Members

California
Campos, Joaquin J.—Downey, CA*
Dang, Alan—San Francisco, CA*
St. Dennis, Kim—Reseda, CA
Thavilyati, Akvara—Los Angeles, CA

Georgia
Knaak, William E.—Alpharetta, GA
Whitworth, Steven—Marietta, GA

Maine
Pelletier, Ron—Madison, ME

Michigan
Costello, Timothy—Novi, MI

North Carolina
Clark, Alfred G.—Asheville, NC
Keenan, Todd—Asheville, NC

Ohio
Johnston, Richard C.—Dayton, OH
MacDonald, Erin—Oxford, OH

Oregon
Johnson, Kat—Salem, OR
Sexton, Jeff—Portland, OR

Texas
Acker, John—Dallas, TX
Eakle, Kelly M.— McKinney, TX*
Galbraith, Gene—Austin, TX
Wimberley, John W.—San Angelo, TX*

Washington
Loewen, Erich E.—Vancouver, WA*

***AWCI welcomes back these individuals who have chosen to re-instate their membership.**



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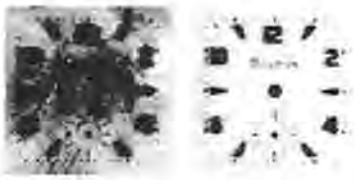
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Instructors:	Laurie Penman, Clock Repair Tom Schomaker, CMW, Watch Repair
Schedule:	Fall Session - September 20, 2006 - November 22, 2006 Winter Session - January 10, 2007 - March 14, 2007
Location:	AWCI Training Facility 701 Enterprise Drive, Harrison, OH 45030
Cost:	$400 per 10-week session Registrants must be AWCI members ($83 yearly membership) Tool and material costs are extra

For more information or to register for a class, contact Nancy Wellmann, Education Coordinator 1-866-367-2924, ext. 303 or e-mail: *nwellmann@awci.com*

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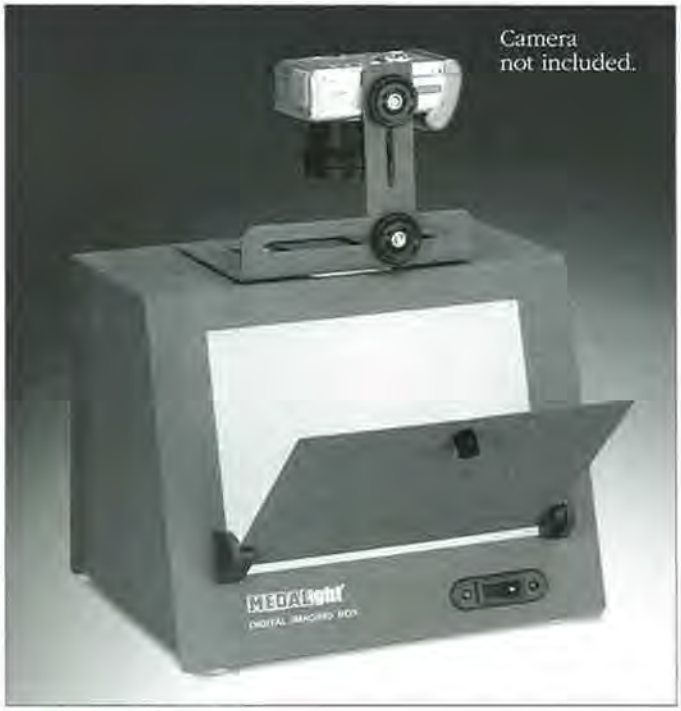
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