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American Watchmakers-Clockmakers Institute*

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## COVER

This month's cover features the AWCI booth at the 2010 JCK Las Vegas Show



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# President's Message

By Mark Butterworth

This will be the last time before the 50<sup>th</sup> Annual Convention of the AWCI that I can encourage you to attend. Like birthdays and other anniversaries this one won't come around again in our lifetimes in all likelihood. The opportunity to meet the vendors face to face at the expanded vendor fair and see their newest offerings should be an incentive to anyone both curious and serious in the business. The representatives from the major watch manufacturers will also be there to talk with you. Of course there will be good educational programs as well. Greg McCreight from Lima, Ohio, is brilliant. I've heard him before on other topics and any clock person will come away with a wow! Please check out the schedule of events in the *HT* and I think you will not want to miss this.

By the time you read this, we will be nearly finishing our fiscal year. Thanks to the hard work by everyone involved, both staff and volunteer, it looks like we will again be in the black by year's end in terms of the operating budget. Our Perpetuation Fund is sound. As of April 30, we have (un-audited) net assets of just under \$7 million, of which our Perpetuation Fund is worth just under \$6.5 million. A lot of organizations would envy our financial position.

Our number one challenge is declining membership. Many of our members are retiring or passing away. We realize that it will never be the same as at the end of WWII, but there are a lot of folks who are simply not members. The AWCI is the gathering place for the professional and serious hobbyist in horology. The value of the website Referral Directory, which can be accessed by the consumer, provides a legitimacy to you as a repairperson that will pay for your dues in one job. You have heard, "Membership has its rewards." Well, it is true. Sometimes it is hard to measure but we never know when it will open a door or secure a customer. The vendor sees you differently—as one who is serious about his work and cares enough to belong. Make certain you let him or her know you are a member. Also ask the person to support the AWCI with advertising.

We have been through difficult times as a country, and for many as business people. The good news is that we have survived. The old adage, "Learn a trade and you will always have work," is still true. In spite of our various challenges, we are survivors and we will indeed overcome.

# Executive Director's Message

By James E. Lubic, CMW21

The final results for the 2010 AWCI Board of Directors Election have been counted and certified by the auditing firm of Rudler and Associates and the one re-elected member and two newest AWCI Board members are:

Gene Bertram CC      David Douglas CW21      Ron Landberg CW21

Congratulation to the three of you; I look forward to working with you for the next three years.

To the other three (Thomas Jeswald, Ernest Tope, and Fred White) who were not elected this year, I would like to thank you for volunteering to serve AWCI as an elected official and I hope you will volunteer to run again in the future.

The Trade Fair season for AWCI is over and it was a very busy time. Even with the down economy there were plenty of people at both the InStore Show in Chicago and JCK Show in Las Vegas. I would like to thank the officials of both of these shows for sponsoring the booth space for AWCI.

We also had a number of sponsors that I would also like to thank. Without their generosity AWCI would not be able to entertain the thought of participating in these shows. They are:

Rolex	Bergeon	Sy Kessler Sales, Inc.
Baume & Mercier	Greiner Vibrograf	Witschi Electronics
Jules Borel	Cas-Ker Co	Herman Miller
Tiffany & Company	Movado	

There are also a number of individuals who need to be recognized and thanked for their help and dedication.

First is Henry Kessler of Sy Kessler Sales/Renata Batteries and Chairman of AWCI's Public Relations Committee, and Christina Aydt, Art Director for Sy Kessler Sales/Renata Batteries. They put in countless hours writing, organizing logos, designing posters and contacting trade magazines for press releases, and a lot of follow-up. This was all at no cost to AWCI. They did a great job!

This year at the Smart Jewelry Show by *INSTORE* and *INDESIGN* magazines in Chicago. I had the pleasure of meeting and working with AWCI members Dale Paxson, and Daniel Nowak. Both live in the Chicago area. They both did a great job representing AWCI.

At the JCK Show in Las Vegas I had the pleasure of working with representatives from two of our sponsors, Gary Borel and Kyle Woolworth of Jules Borel & Co., and Rick Foster of Cas-Ker Company. Both Jules Borel and Cas-Ker Company do a wonderful job in assisting AWCI to represent the trade at the JCK Show. Both companies display various watchmaker tools and help to greet visitors in our booth. We also display test equipment from Greiner Vibrograf and Witschi SA.

Continued on page 32.

**RENATA  
AD**

## Question

These two pictures are of a clock that I have recently repaired. The customer would like to know who manufactured it, and the date of manufacture. There are no markings on the movement or the case to indicate its origin. I would appreciate any information you could share with me.

*Gordon G. Beach  
Yuma, AZ*

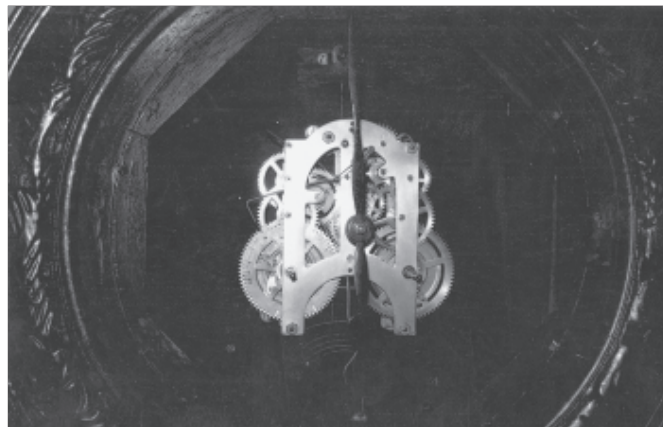


## Answer

Your customer's wall clock has a Rococo-style case. A few of the American clock producers of the early 20<sup>th</sup> century produced a similar style, but yours appears to be of more recent manufacture. The glossy finish, the style of the carving, the asymmetric depiction of a dogwood (?) blossom above the door, and especially the fact that the movement is unsigned, leads me to this conclusion. The movement is distinctly an Ansonia-style movement. Ansonia almost always put their name on their movements, especially those for domestic use. Although I have seen some Ansonia movements used in commercial timers that were not signed.

In the 1970s, one of the Korean clock manufacturers copied the Ansonia movement almost exactly, except with thinner gauge brass plates and wheels. It is a decently made movement and is well worth repairing.

Send your questions to:  
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# 2010 AWCI Election Results

The tabulation of ballots in AWCI's 2010 Board of Directors Election is complete. There were 616 valid ballots cast. Three directors were chosen from a slate of six candidates. Elected to serve a three-year term are: Gene Bertram, David Douglas, and Ron Landberg. Congratulations!



Gene Bertram, CC  
St. Louis, Missouri



David Douglas, CW21  
Dripping Springs, Texas



Ron Landberg, CW21  
Arvada, Colorado

**Cas-Ker**



# Introducing AWCI to the North American Jewelry Industry

By Henry Kessler

Three years ago, AWCI began exhibiting at the JCK Las Vegas Show and two years ago at the InStore Chicago Smart Show. This is important, because it marks the first time our organization has stepped forward, showing its face and staking its rightful claim as the American entity responsible for training and certifying watchmakers and clockmakers for the 21<sup>st</sup> Century.

You would be proud of AWCI, too. Our trade show booth display looks first class, with tremendous graphics. Over the years, AWCI members, employees and sponsors, representing some of the best and the brightest individuals involved in horology, have staffed our booth. All of this was made possible, thanks to the generosity of AWCI's Industry Advisory Board and numerous sponsors. And it is important to note, our organization has man-

aged to obtain the trade show exhibit displays and attend these shows at virtually no cost to our members.

The CW21 and CC21 programs have been progressing, and a new breed of professional watchmakers and

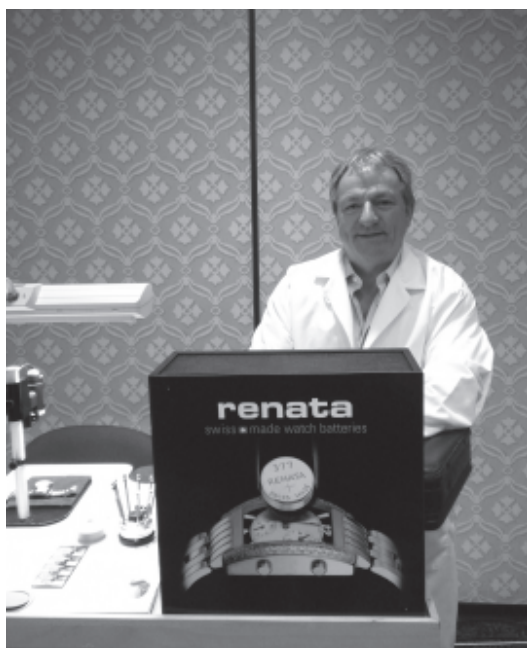




clockmakers has been born. While the number of AWCI certified professionals is destined to continue to grow,

there are members of AWCI's Board of Directors and IAB that have come to realize that the future growth of horology in America and in turn for AWCI, may be related to expanding AWCI's membership and training programs to the benefit of all levels of horology.

dealers, in addition to watch wholesales and manufacturers, is by exhibiting at major watch and jewelry industry trade shows. By exhibiting at these shows, we are now actively engaged in marketing our organization. But we have much work yet to do!



Everyday thousands of watches and clocks are repaired throughout America by technicians possessing all levels of expertise, ranging from Swiss-trained watchmakers with 4 years of college level horology (I refer to these people as the PhDs of our industry) to self-taught experts—and virtually everything in between. One of the best ways to reach the thousands of people involved in watch repair is via their employers—watch dealers. Most watch dealers are also jewelry dealers. One of the best ways to reach watch technicians employed by watch

#### Photos

*Top (L to R): Jim Lubic, AWCI Executive Director, Kyle Woolworth, Jules Borel & Co. and Rick Foster, Cas-Ker Co.; Watchmakers' equipment on display during the 2010 JCK Las Vegas Show; Jim Lubic and Henry Kessler, President of Sy Kessler Sales, Inc.; AWCI literature and equipment were available for visitors to the AWCI booth. Bottom (L to R): Jean-Jacques Mamie, seminar instructor, and Jim Lubic during the AWCI watch battery replacement training program; Jean-Jacques Mamie. Photos courtesy of Henry Kessler.*



At the recent JCK Las Vegas Show, my company (Kessler/Renata) offered to sponsor a 45-minute watch battery replacement training program. At practically the last moment, JCK agreed, and offered to arrange to move the beautiful workbench Jules Borel was exhibiting in our booth, to an area in the JCK technology exhibit hall, set up to accommodate 100 people, with a sound system and support staff. They also offered to advertise our training program on their website, which was indeed helpful.

Our seminar was titled: “How to cautiously yet profitably replace watch batteries.” Swiss-trained watch repair instructor and gemologist Jean-Jacques Mamie acted as our seminar instructor. “JJ” is the owner of a watch service company called Swiss Connection, and a retail jewelry store that operates under his name in Dana Point, California. Although proficient with all major brands, Jean-Jacques has worked with Cartier, Piaget, Concord, Corum and other famous brands over the past 30 years.

About 20 people, ranging from watchmakers to retailers that changed a high volume of batteries without ever having received any formal training, attended our seminar.

While the training was indeed interesting and helpful to those who attended, Jim Lubic and I managed to



#### Photos

*Top: Jim Lubic works at the bench during the 2010 JCK Las Vegas Show; Middle: Gary Borel, Jim Lubic and Rick Foster greet visitors to the AWCI booth; Bottom: Jim Lubic talks with Jacque and Annie Tabakian. Photos courtesy of Kyle Woolworth.*

interview everyone in attendance. We asked questions such as:

- What do you need training in?
- How long would you be willing to send employees away from work for training?
- How far would you ask these staff members to travel?
- How much would you be willing to pay for training?
- What would be the best way for AWCI to package and deliver our training materials for you?

Overwhelmingly, the responses pointed AWCI toward emulating GIA and their gemological training programs, including correspondence classes, DVDs and printed training materials and regional trade show classes, as well as web-based training seminars. The possibility of sending these potential students off to school for weeks or months at a time was simply not a viable option for most employers.

If any of our AWCI and IAB members are willing to help begin the process of creating training materials that could be marketed by AWCI and its IAB members, as web training seminars, DVD training lectures, and printed support materials, please let me know! We need to perform more market research to fully learn what the market needs, yet it is conceivable that we begin with watch battery replacement, waterproof testing, watch band replacement, service diagnostics and estimates, and general product knowledge and sales training. One day AWCI may be selling boxes filled with training materials from our trade show booth, as well as jewelry supply houses around the world.

*Henry Kessler is President of Sy Kessler Sales, Inc. Together with his brother/partner Daniel, they have been responsible for marketing Renata batteries in the U.S. since 1980. Their GemOro equipment and supply products are widely distributed throughout the watch and jewelry industry through most watch parts and jewelry supply houses. Henry Kessler is Chairman of AWCI's IAB, and as such he serves on the AWCI Board of Directors, and several committees.*



## Livesay's

# Making a Simple Pivoting Chuck

By Dale LaDue, CMW21

A pivoting chuck can be assembled utilizing a Sherline 8 mm collet to 3/4-16 thread adapter, Figures 1 and 2. Also, a small section of round 1-1/8" steel or brass rod, three 2-56 button head Allen screws, a 2-56 tap, a #50 tap drill, a #43 drill were gathered.

The 3/4-16 thread were turned away and a 1/8" hole was drilled 3/8" to 1/2" deep

on center, as shown in Figures 3 and 4. The 1-1/8" steel section was mounted in a three-jaw chuck in the lathe. A profile was turned to approximate dimensions (Figure 5), then drilled and bored out to a slip fit over the front section of the adapter chuck as shown in Figures 6, 7, and 8. The outside dimensions are subjective and simply need to be substantial enough

to meet the small pressure that will be needed to hold a workpiece stable. Figure 9 shows the steel rod bored out and to the proper depth.

The initial profile was followed and turned down to include a full diameter flange and a side wall of approximately 1 mm thick. A center drill was then used and followed by the 1/8" drill to



Figure 1. The product number of the chuck adapter

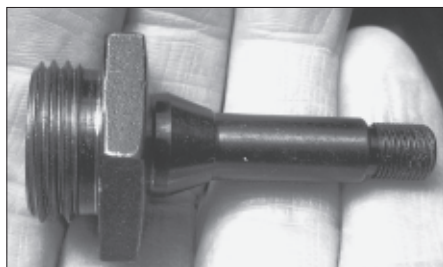


Figure 2. The new unaltered adapter

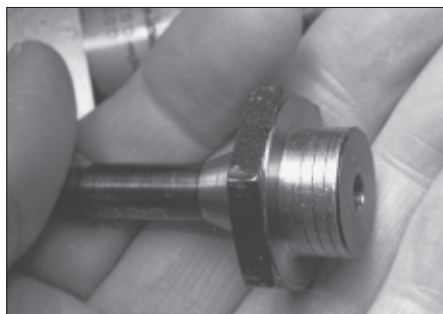


Figure 3. The threads have been turned down and a center hole drilled.

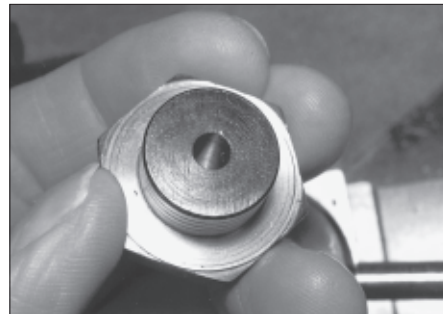


Figure 4. Another view showing the hole drilled to a 3/8" to 1/2" depth.

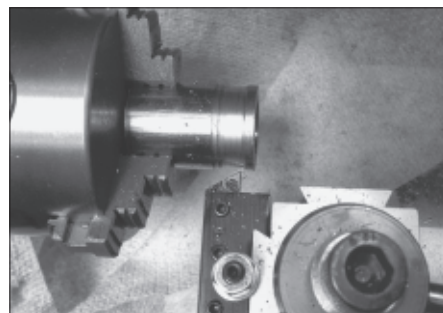


Figure 5. A simple profile was turned.

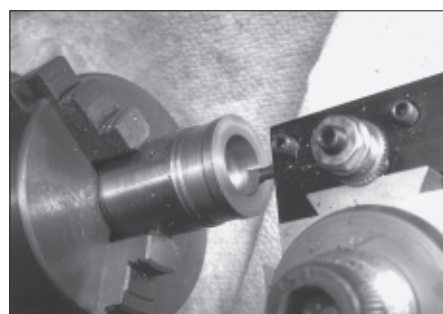


Figure 6. The inside diameter was bored out to a slip fit over the altered adapter.

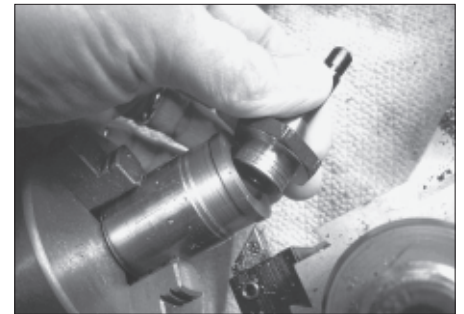


Figure 7. The adapter was tested for fit several times.

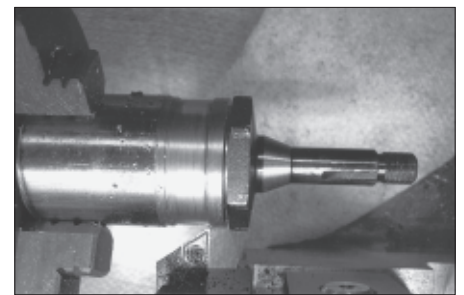


Figure 8. The adapter slid easily into the workpiece.

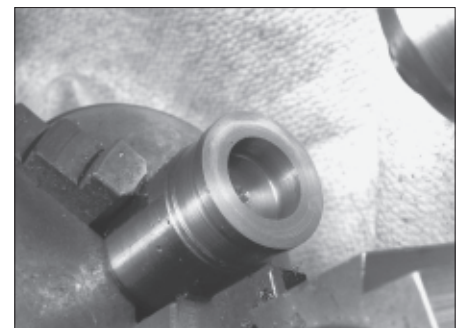


Figure 9. The completed inside diameter

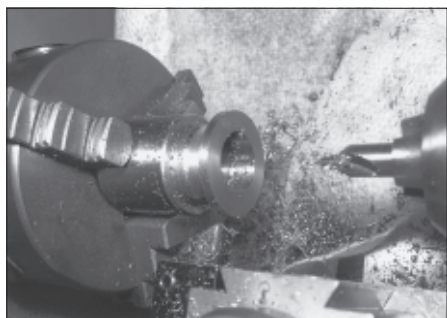


Figure 10. A center drill was used to drill a hole into which the 1/8" drill was driven.

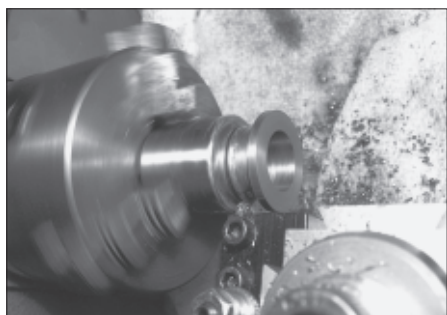


Figure 11. The workpiece was parted from the stock.

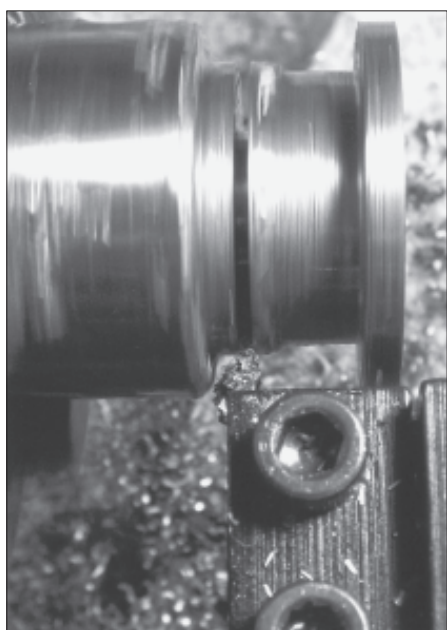
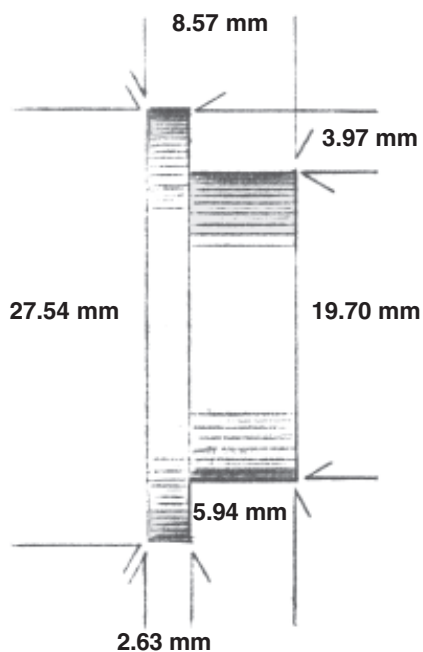


Figure 12. A closer view

match the hole in the adapter chuck, Figure 10. The workpiece was parted from the steel rod approximately 1 mm beyond the bored depth, Figures 11 and 12.

The thickness of the flange measured 2.63 mm on this prototype. The width of the flange measured 3.97 mm, which accommodated the button screw head



Drawing 1



Figure 13. A live center was placed in the mill head and used as an aid to center the workpiece.



Figure 14. The x-y table was adjusted until the center located the hole in the workpiece.

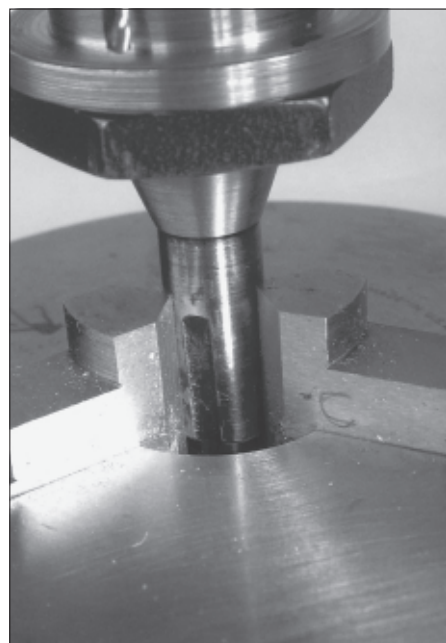
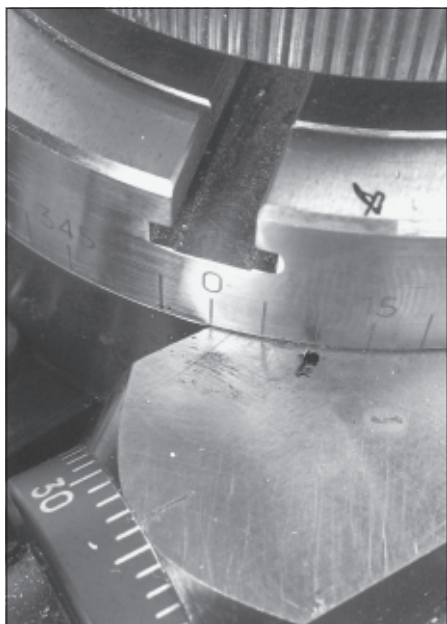


Figure 15. The adapter was held in the three-jaw chuck, carefully orienting the chuck key slot away from any of the jaws.

diameter. The top section diameter measured 19.70, and consequently the overall diameter was 27.54 mm (measured across the flange). The total height measured 8.57 mm. Drawing 1 depicts the dimensions of this particular workpiece.

A three-jaw chuck was mounted on a rotary table, which was then affixed

to the x-y table of a milling machine. This allows for three equally spaced holes to be drilled and tapped. The finished top piece was super glued onto the adaptor chuck, which was then mounted in the three-jaw chuck and centered utilizing the x-y tables, Figures 13 and 14. A cautionary measure was to be sure that the key way on the chuck shaft was clear of any of the



*Figure 16. The rotary table was set to the zero degree mark.*



*Figure 18. The #50 drill was used to drill through both the flange and the hex.*



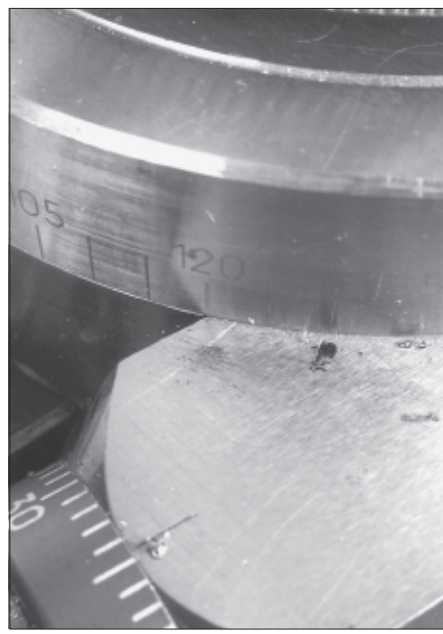
*Figure 20. The knurled aluminum disk provided a delicate feel while threading the hex. The tap turned freely in the mill chuck, which maintained a vertical axis.*



*Figure 17. The y table was moved back until the drill was positioned over the flange.*



*Figure 19. The #43 drill was used to drill through the flange only, providing clearance for the 2-56 screws.*

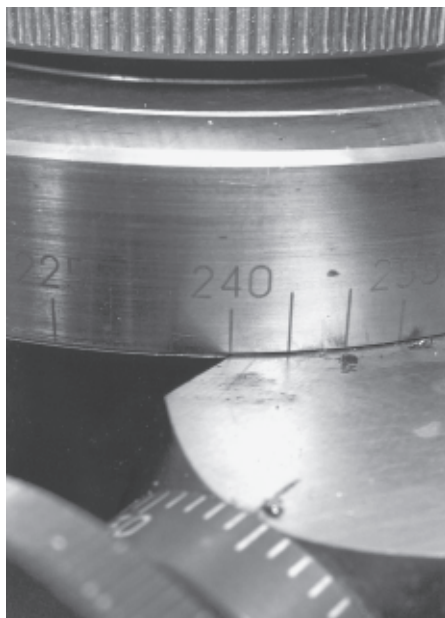


*Figure 21. The rotary table was then rotated to 120° and the process was repeated.*

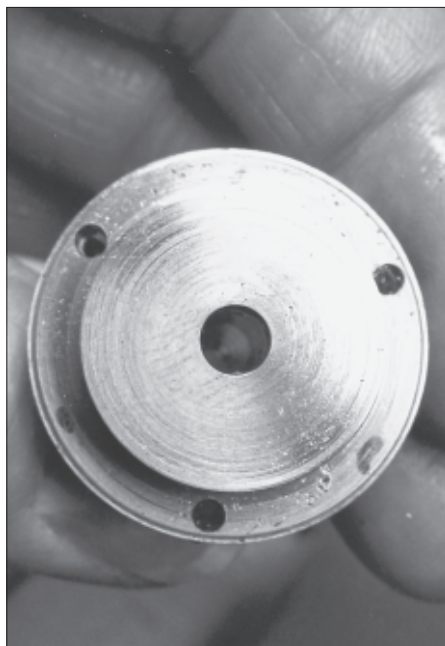
three jaws as shown in Figure 15. With the previously stated caution in mind, the rotary table was set to zero, Figure 16, and the y table were moved back until a #50 drill was positioned over the flange, Figure 17. The #50 drill was driven through both the flange and the

hex flange as shown in Figure 18. A #43 drill was installed in the mill and without moving the workpiece a clearance hole was drilled through the cap flange only, Figure 19. The #50 drill is the tap drill and the #43 drill is the clearance drill for the 2-56 screws.

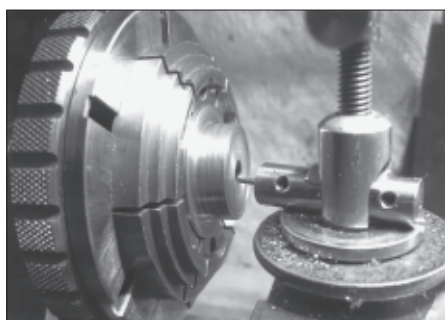
After the clearance hole was drilled, the #43 drill was removed and a 2-56 tap was held loosely in the mill chuck. A knurled aluminum disk was clamped onto the shank of the tap for sensitive thread cutting, Figure 20. This complete process was repeated at the 120°



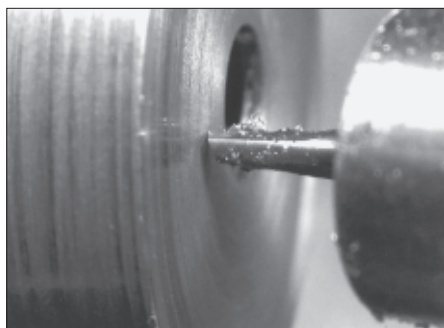
*Figure 22. At 240°, the last hole was drilled and tapped.*



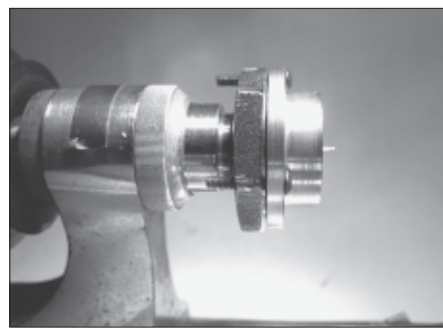
*Figure 23. A view of the finished cap still super glued to the adaptor*



*Figure 24. After the glue was removed, the top surface was faced and thinned to just less than one millimeter.*



*Figure 25. A closer view*

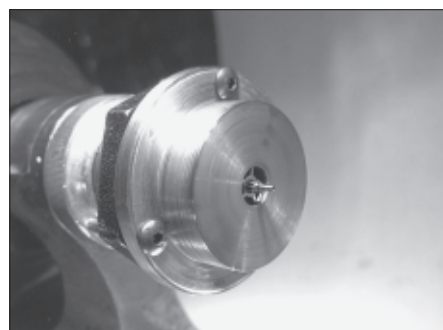


*Figure 26. A side view of the pivoting chuck*

position of the rotary table and again at the 240° position, Figures 21 and 22. The finished piece is shown in Figure 23.

The cap was heated until the superglue released. It was then soaked in acetone to remove the glue residue. After cleaning, the cap was mounted in a chuck and faced flat thinning the top surface as well, Figures 24 and 25. The top thickness of this prototype was slightly under 1 mm, which is more than enough for stability and leaves enough metal for thinning if necessary. Two views of the finished pivoting chuck are shown in Figures 26 and 27.

The Allen head screws use a 0.050 Allen wrench. A delicate touch is used when adjusting and tightening these



*Figure 27. A view showing a pocket watch center wheel centered and clamped in place*

screws. The wheel should be held in place and able to slide freely as it is brought to center and then clamped by applying more tension by equally tightening the Allen head screws.



## Correction

May 2010 issue of *Horological Times*, page 13

The last three sentences of A Replacement 8 mm Lathe Draw-in Spindle, Part 2, by Dale LaDue, should have read:

The finished sleeve as shown in Figure 63 illustrates the shoulder created to properly center the new draw-in spindle. Figure 64 shows the spindle installed without its grip. The new W.W. style spindle and the new Levin spindle are shown in Figure 65.

We apologize for this mistake and any confusion it may have caused.

# Clockmaking Elements

## Part 6

### The Deadbeat Escapement

By Laurie Penman

The Graham deadbeat escapement is the most popular for clocks that are required to be more precise than those fitted with recoil anchor escapements; however, it also appears on modern clocks with poor pendulums and trains that are not designed for precision. I have never understood why modern manufacturers choose to fit poorly made deadbeat escapement, unless it is the advertising value of labeling the clock “deadbeat”.

So far as I am concerned the Graham deadbeat needs to be made well and fitted to clocks with trains and pendulums that are designed to give better performance than a recoil movement. This escapement should be generated

rather than constructed to a set geometry like the traditional “square” recoil anchor, or the method I described that relies on making tangents to the crossing circle. Both methods are simply convenient approximations. The deadbeat construction is not an approximation. A deadbeat escapement pallet has two functions: impulsing the pendulum (or balance wheel) and locking the escape wheel so that it does not go back on itself (i.e., recoil).

Figure 1 shows the main elements of the escapement. Locking faces should be arcs centered on the arbor center so that as the anchor swings, the working tooth (entrance or exit) rests on those surfaces without moving. In other

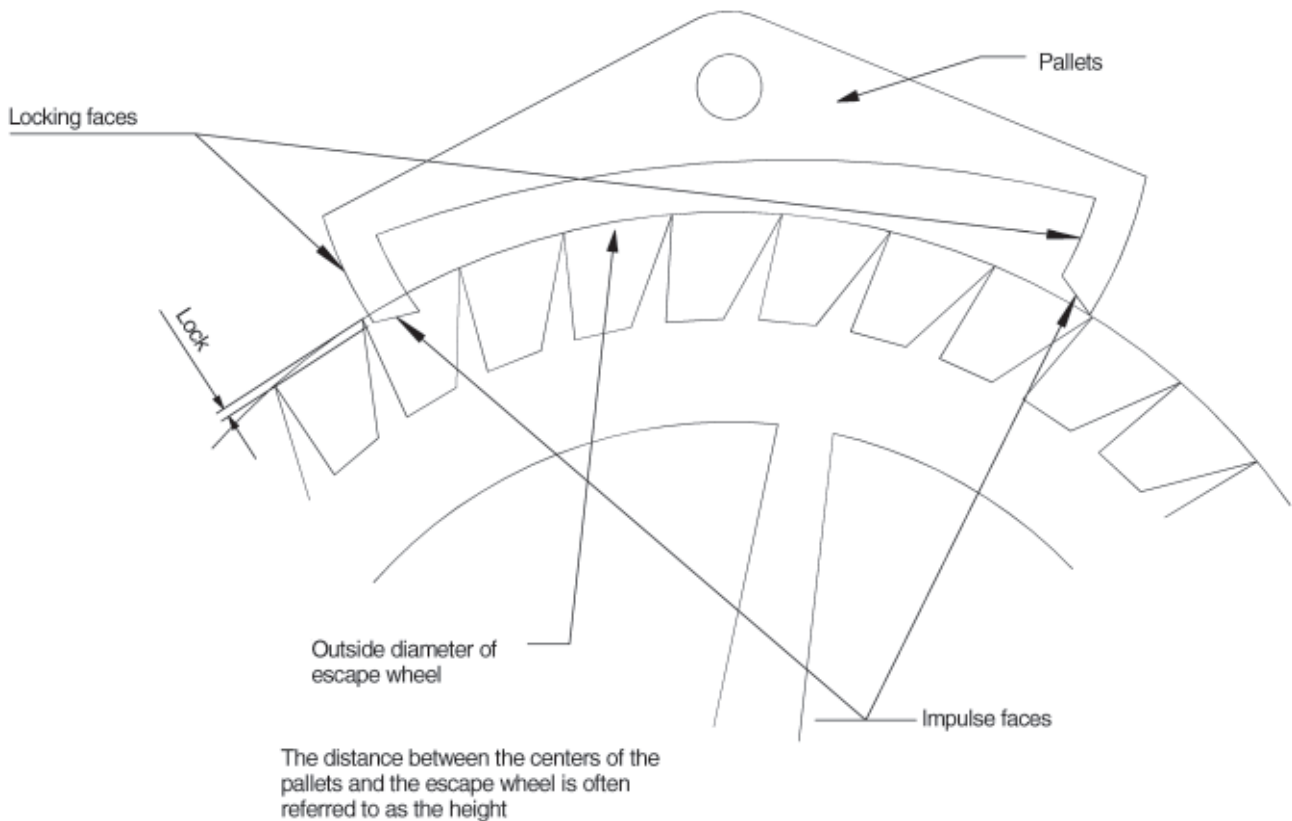


Figure 1

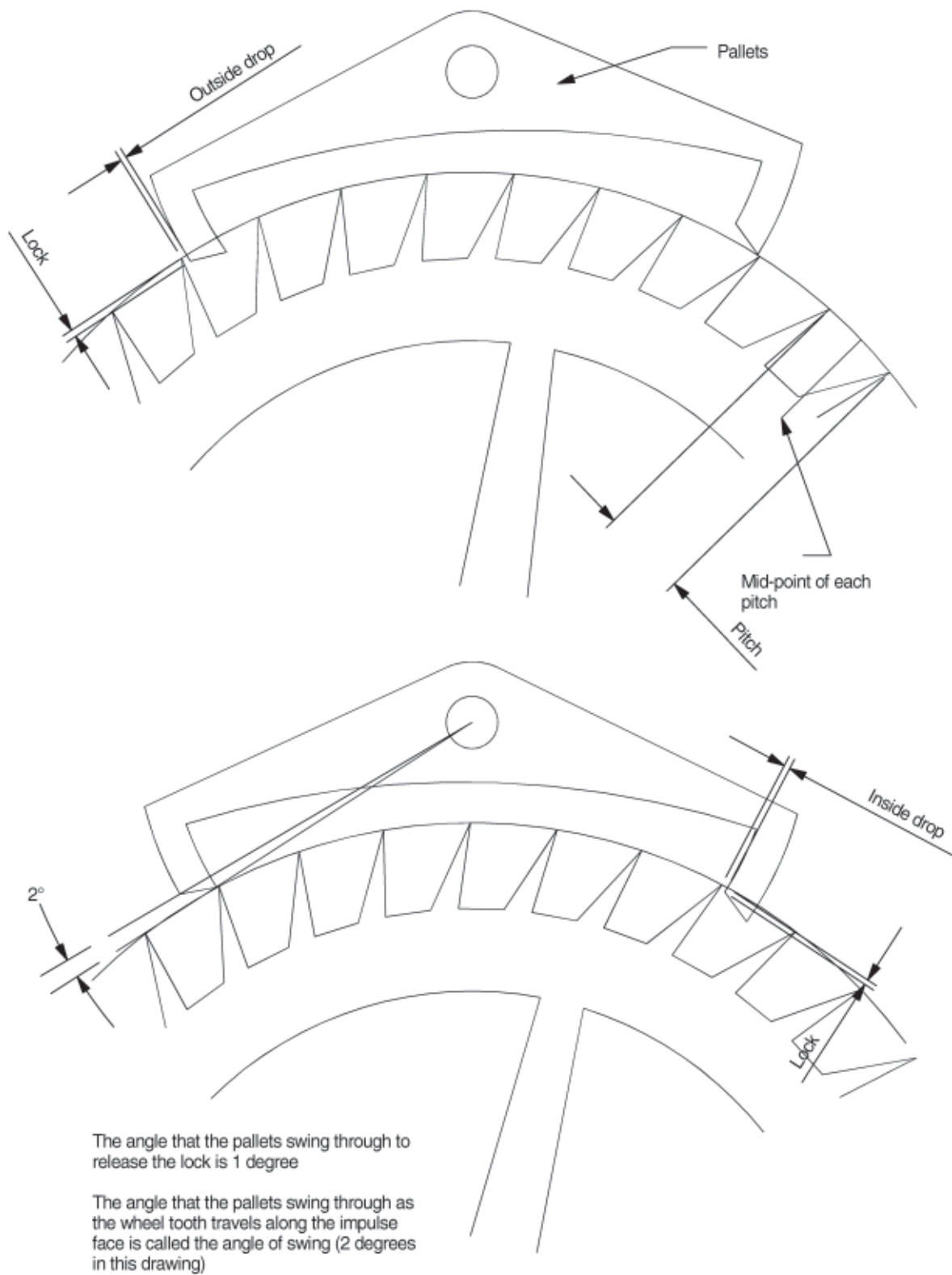


Figure 2

words the escape wheel does not recoil, neither is it “drawn” (moved in the normal direction of rotation). To achieve this an escape wheel tooth must overlap one dead face (the left-hand or entrance pallet above) when the other (right-hand or exit pallet) is on the point of releasing a tooth. The amount of overlap is called “lock”.

The impulse faces lift the anchor and impulse the pendulum so that it keeps swinging, and the angle that the pallets move through during the impulse is termed “swing angle” or “lift”.

There has to be some free movement of the wheel for it to clear the pallets and this is referred to as “drop”. (Outside drop is shown on the left and inside drop on the right of the lower drawing.) The three dimensions of lift, lock, and drop are usually specified as angles, or in the case of the last two, as proportions of the pitch of the wheel. Figure 2 has a lift of  $2^\circ$  and a lock of  $1^\circ$ , dimensions that are determined by the designer. Lift is dependant upon the arrangement of the pendulum, and crutch, and the angle of pendulum swing desired. The usual arc for a regulator pendulum is between  $2^\circ$  and  $3^\circ$ .

The reason for this is that clocks have a better performance (using a Graham deadbeat) if the swing of the pendulum is small. This is connected with the circular arc error, the escapement error, and the manner in which both are affected by the pendulum arc. A chapter of A. L. Rawlings book, *The Science of Clocks and Watches*, deals with these matters in detail, but in brief, circular arc error is smaller for changes in pendulum swing when the average swing is short and friction on the locking faces can counter the effects of circular arc error. Nineteenth century regulator makers employed much heavier weights than were necessary, which would increase the frictional losses on the locking faces; friction at the impulse faces was also increased of course and this does not (according to A. L. Rawlings) have the same beneficial effect. It is for this reason that escapements have been designed that separate the impulse and locking function, each being handled by a different wheel. The gravity escapements

are an example. Of course if the pendulum can be persuaded to keep very close to a constant arc, circular error can be ignored. The early Riefler astronomical clocks used a very accurate temperature-compensated pendulum, a barometrically controlled container, and were placed underground in many cases with a temperature change specified as being no more than a fraction of a degree Celsius per day. These clocks measured time to a rate measured in thousandths of a second per day, using a perfectly normal Graham deadbeat escapement.

### The Construction of the Deadbeat

**The Wheel:** It is fairly obvious that the outside diameter of the wheel is determined by the number of teeth and the size of those teeth. If the wheel has a small diameter it will have small teeth; a larger diameter will give larger and more robust teeth that are easier to machine. Unless there is a separate means of supporting the escape wheel, such as a subplate, it cannot be larger than the wheel that drives its pinion because it would interfere with the third arbor. Earlier I settled on 105t for the third wheel and a module of 0.5 mm, consequently the outside diameter of this wheel is 53.88 mm. Even if the size of the third pinion is not taken into account, there is room for an escape wheel of 50 mm diameter, which is much larger than normal. The pitch of thirty teeth on a wheel of this diameter is 5.2 mm approximately. On a practical note the High Speed Steel (HSS) tool bits that I use in my fly cutter have a square section of 6 mm so that does not preclude cutting a 50 mm diameter wheel.

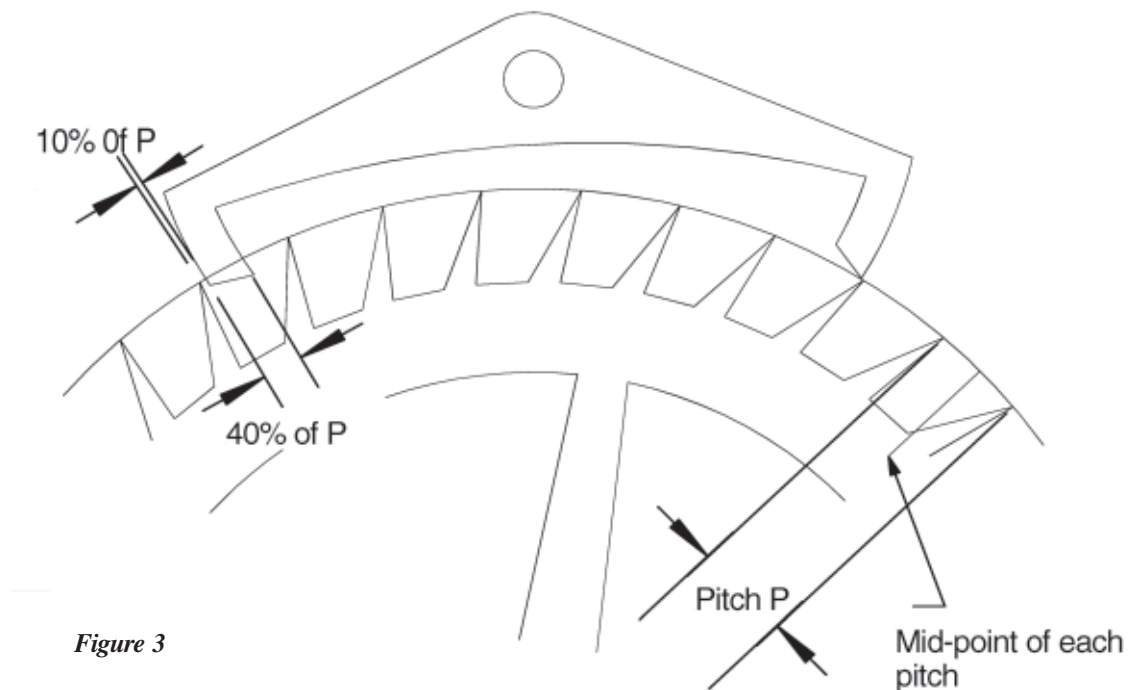


Figure 3

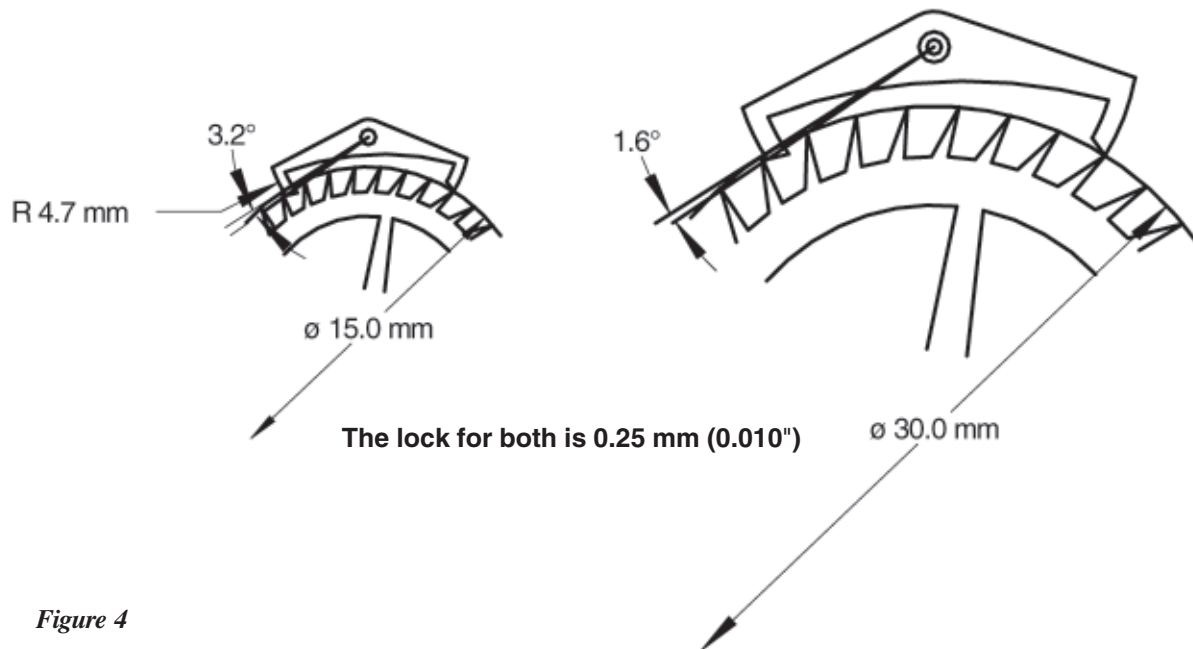


Figure 4

In fact there is nothing that rules one way or the other for a large or a smaller wheel so long as the proportions of wheel and pallets are similar. For a given driving weight the force at the tooth tip declines as the wheel gets larger, but the pallets get larger too and the smaller force has a longer lever arm to act upon. The multiple of force and lever arm (torque) remains constant.

I am choosing to make the wheel 40 mm outside diameter. It is an arbitrary decision, but it looks right and that is as good a reason as any.

Figure 4 shows the wheel tooth form, it has a rake on the forward face so that only the tip will wear on the exit dead face. If this face touched the tooth anywhere but the tip, the wheel would recoil. The form results in a tooth that is deep enough to allow a reasonable supplementary arc and allows the pallet to “bottom” in the tooth space so that it can self-set the beat.

What is a reasonable supplementary arc? I suggested that a semi-arc of 1° is usual and desirable for a regulator pendulum, or a 2° swing angle for the pallets. For the time being I will ignore the fact that the pendulum swing does not have to be the same as the swing angle of the pallets. The supplementary arc is affected by the amount of “surplus” energy available. By surplus I mean the amount of energy in excess of what is needed to just operate the escapement, since the energy delivered to the escapement by a normal gear train will suffer variations, there has to be an excess; how much excess is entirely up to the designer. However, it must not be so much that the pallet bottoms in the tooth spaces, as if it was self-setting.

Self-setting is carried out by moving the pendulum bob to one side and then releasing it so that it swings without wobbling. Clearly this cannot be more than the space within the case allows and so the case imposes the limit. In fact, it is useful to have a locating piece attached to the inside of the case so that the bob is pulled to the correct position whenever it is self-set. The required angle for this must be decided before the wheel is designed and that can be used to draw up the form of the teeth and teeth spaces. This design has a self-setting angle (from the vertical) of 3°.

**Lock:** Most books specify an angle for the lock. This is the angle that the pallet swings through from the point of first contact to the junction of dead face and impulse face

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(the heel) and ignores the measured overlap of tooth and pallet. I believe that lock is a matter of the delicacy of the tooth tip and its sharpness. The lock angle is subtended from the center of the pallets so it is necessary to know the radius of the locking face. For simplicity I will only consider the entry dead face (the exit radius is smaller). If an angle of  $\frac{1}{2}^\circ$  is specified for the pallets of a wheel of 15 mm diameter, the lock will be the radius of the dead face  $\times \tan 0.5^\circ$  (or the sine for such a small angle). In my drawing that would amount to  $4.7 \text{ mm} \times 0.0087 = 0.041 \text{ mm}$  (0.0016"). Even for a watch movement this is a very small amount of lock.


A lock of twice this much would still require precise manufacture of both wheel teeth and pallets and would result in a very delicate escapement.

A more normal lock is about 0.25 mm (0.010"). The tangent of the angle needed is approximately:  $0.25/4.7 \text{ mm} = 0.053$  which gives an angle of  $3^\circ 2'$  for a wheel of 15 mm diameter. The same amount of lock on a 30 mm wheel (with pallets of the same proportions) is approximately

half at  $1^\circ 31'$ . Such a lock would be suitable for either wheel. It does not seem to me to be reasonable to specify the lock in terms of angle.

Lock affects the amount of drop, which may be described as wasted movement because no impulsing takes place during drop. Earlier I said that it was common to arrange matters so that the drop was 10% of the pitch and impulse was 40%. Increasing the drop decreases the amount of impulse (or at least the time during which it takes place). The choice of wheel diameter and lock requires the designer to recognize how accurately the machining can be carried out. If the machinery available cannot guarantee wheel pitches accurate to within 0.025 mm (or plus or minus 0.012 mm) it is hopeless to specify a wheel with a lock of less than 0.125 mm (0.005").

Figure 4 demonstrates lock-on wheels of two different diameters, (the same scale is used for both drawings).

I will deal with drop and the impulse faces next month. 



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



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## Education Notes

This is your last call to join us at the AWCI Annual Convention! This is a fantastic opportunity to meet with your Board members and tell them what you want—personally. This is a wonderful time to learn something new and to begin to build that skill bank you need to improve your bottom line. It's all there, just waiting for you. Come join us. I'll be there to help answer business questions and maybe help you get over that dollar hump you have been trying to increase. It's August 4-8 at the Cincinnati Marriott RiverCenter. I look forward to talking with you there.

This month I want to tackle one of the most frustrating misconceptions that I get calls on nearly every week. "I understand that AWCI is for professionals only and I'm a hobbyist. What can I learn from being a member?" Let me address this from another angle. First, everyone in the trade today started as a watch or clock enthusiast.

The lure of the science, technology and art of these types of mechanics is too seductive to just casually pass by for some people. If it were not for the intrigue of the product, there would be no one who would ever want to work in this trade. Think about it. If you were told to spend eight hours a day, working on worn and beat-up products that don't want to cooperate, in a 144-square-inch work area, would you? And this sounds like fun? I have to admit it does to me! It seems that we all get the same "kick" from bringing back to life a machine that was dead.

The real challenge or quest comes when you can see that one more technique will help you get the product just a little closer to what it was when it first left the factory at Hamilton or Ansonia. For example, if you just had a lathe, you could make sure all the shafts were straight and the pivots like they were when they left the factory. That's the excuse I have heard hundreds of times as a reason an enthusiast gave to purchase a lathe. Then the broken or "I" shaped pivot—if you could just replace that—the

watch or clock would run as good as new. I could go on and on but I think you get the point. You see, when you get consumed by this logic and the call of the challenge, it's hard to say no. That is the one problem that I have spent much time working on with new professionals, who get so caught up in that challenge that they forget they also have to earn a living. This is when the enthusiast crosses that "line" and moves towards professionalism.

Being an enthusiast is not a problem or a bad thing; it's a starting point! That is just the place where AWCI has and wants to maintain its position. Take a look at a piece of our mission statement: "...dedicated to preserving and promoting the highest standards of workmanship in the horological crafts. It is the role of AWCI to set the standard of excellence..." It is the enthusiast who is the next professional—especially in the horological trades.

Because of the size of our trade, I spend my time and the Board tries to spend its money where it will help the most at the current time. Right now, our efforts are to develop those professionals and set a uniform standard that will allow others to reach the same level and gain the same recognition for their proficiencies. That is the basis of our new 21<sup>st</sup> Century Certification programs. Look into them.

The S&Ps are guides to help everyone produce the finest quality of workmanship, based on a standard that was developed and agreed on by professionals who make their living daily with these products—BOTH clock and watch.

I have never turned down a question or request from an enthusiast and never will. Don't be afraid to ask. You can't learn if you just sit there in silence!! That's what we are here for.

A month ago, I got a call from a member who was searching out a part that was no longer made. What was interesting is that he claimed to have a large number of years

of experience in the trade but still did not own a lathe and as such could not make a new set of sprockets where the old ones had worn badly. I explained how he could accomplish the needed task but with no lathe, he would have to send it out to another shop to get this done. What a money loss. This job doesn't take but an hour for three sprockets, but to send it out may cost a hundred-plus dollars. That could have been his money. Without the skill and the tools, it's hard to raise your bottom line. In my mind it also makes this business flat and uninteresting. Half the fun to me is making things. Think about it. Skills equal money and tools equal speed. If skills equal speed, then tools equal money. Yes, I think those equations work out correctly. Build your craft, build your skills, build your clientele and build your income! Check it out yourself.

One last e-mail I want to share came from another educator. His question referred to the confusing information about escapements. He was concerned that if all the confusing information he has read in the literature is still in use, are the assessors going to be able to score the certification exams fairly and correctly? Of course they are able and well trained to do so! When AWCI set about the task to develop a new certification program, we had to have a standard to use as the rule. That became the S&Ps for watchmakers and clockmakers. These are not the same documents, but both were developed by committees composed of bench professionals who are currently making their living doing this kind of work daily. The historic literature is full of old tales that we know today are no longer correct.

Many of the old writings were done, not to share true information, but to elevate one's standings. Especially if you could disguise what you were saying well enough, you came off sounding like you really understood something no one else did. Best of all, you kept others from stealing your trade secrets that made you money. I say that was really a bad attitude but oftentimes poor writing, regardless of intent, results in confusion and not improvement of trade knowledge. If you study escapement information, you will find that there are consistent relationships that are met, regardless of what kind of escapement you are observing. They all have drop, lock, and lift. If they are made correctly, the entrance and exit pallets must show each of these in equality (i.e., the entrance drop must be the same amount as the exit, etc.). I have never seen any exceptions that ran very well, or at all. When you cut

away the personal ideas and stick to the specifics, the information begins to stand out. Still unclear? Get together a group of 10-12 like-minded people who want to purchase the program, call AWCI and they will help you organize and get an escapement course (or any wanted course for that matter) in your area.

AWCI is here to help you grow, be it as an enthusiast or professional. But we need to hear from you. Come talk to your Board members, or me, or the Executive Director, Jim Lubic. All of us want you to succeed and grow with this trade. Just think what would happen if the alternative became the norm?

Next month I will be taking a much-needed break. I hope someday to get back to writing more about escapements. Need to learn about something else? Let us know. We really are here to help. Have a good summer.



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*Horological Times* takes you on a trip back in time featuring messages from AWCI Past Presidents and Executive Secretary/Executive Directors as we continue to feature bits and pieces of the 50-year history of AWI/AWCI. This month we are reprinting a President's Message from July 1996, and an Executive Director's Message from October 1996.

## President's Message by Joseph Cerullo

In my last official address to the members of AWI, I would like to reflect on my past two years as president and my overall involvement with AWI.

Since joining AWI in 1975 at the tender age of eighteen, I have seen my meager annual dues turn into an investment in my future without limits. In the beginning, the return on my investment was simple—the monthly magazine which at that time was called the *American Horologist and Jeweler*. Every month I waited for its arrival like a kid waiting for his decoder ring to come in the mail. As soon as it arrived, I would stop whatever I was doing and begin to browse through it quickly. Later I would spend time to actually read it from cover to cover. It was through this magazine (later AWI published the *Horological Times*) that I began to develop respect and admiration for the various contributing editors, notables such as Orville Hagans, Henry Fried, Marvin Whitney, Archie Perkins, and many more.



It wasn't until my first trip to Cincinnati in 1982 as an alternate delegate for New Jersey that I became aware of how much more there was to realize from my investment. The mere fact that I had the opportunity to sit and break bread with these icons of horology was worth the time and money away from work.

It was also at this time that I began to believe that I too could make a contribution, however small, to AWI. It was time to start giving back for what I had received. Since my first trip I have not missed a year in attending the annual meetings. I have served on several committees with many very dedicated people and have made many friends, and I'm sure a few enemies also. The most rewarding experience for me was to be part of the Building Committee that worked long hours with the AWI staff to design and contract our new world headquarters.

Last year before our ribbon-cutting ceremony, a group of volunteers finished the Henry B. Fried tower clock that was dedicated to Henry for his contribution to horology and to AWI. In his obituary in the *New York Times* it states that this day was one of which he was most proud. It was also one of mine. In the past year we have said good-bye to Marvin Whitney and Henry Fried. I cherish all the memories and times that I have spent with these two great men.

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AWI is undergoing change as you read this column. Our leader for thirty years, Milton Stevens, is retiring this year. We are hoping to replace him with someone who can continue the job that Milt has done.

This past year has been a tough one for many of us at AWI. Change is not always easy but it is always necessary and it will always continue. I want to thank everyone who has worked with and believed in me. I want to apologize to anyone whom I might have offended during my tenure. I'm sure that if we all have and hold the best intentions for AWI we will continue to grow and be the best we can be.

## Executive Director's Message by Bill Ewbank

My name is Bill Ewbank, and I hope this is but the first of many messages I make to the membership and readers of *Horological Times* as the Executive Director of AWI. I would like to begin by telling you a little about myself and offering some of my first impressions as a newcomer to the American Watchmakers-Clockmakers Institute.

Like every human being, I am the product of my environment. I was born and raised in Lawrenceburg, Indiana, only a few miles from the town of Harrison, Ohio, where AWI headquarters is located. I am a descendant of one of the earliest settlers of the Indiana territory and am of the sixth generation of my family to call this area my home. I am a graduate of Hanover College in Hanover, Indiana, and a veteran of the United States Navy and the Vietnam War. My career includes over twenty years in vocational education, first as a public official in Indiana state government, later as a corporate officer in national groups of private schools, and finally as a chief executive officer of a private career college in Cleveland, Ohio. My most recent occupation was as an agent and registered representative for Metropolitan Life Insurance Company's Cincinnati office.



My father was an attorney and my mother a Director of the Lawrenceburg Public Library. I have a solid middle class, Midwestern American background, with an upbringing deeply rooted in a sense of history, family, duty and integrity. I now find myself at the fulfillment of a life's ambition. I have been able to become the new Chief Executive Officer of a world class organization dedicated to the advancement of an ancient and honorable craft, and return to my beloved Indiana countryside. I am in all respects a very lucky man.

Let me now describe my first impressions of AWI with the fresh perspective of a newcomer to the organization and one totally untutored in the art of horology. As a visitor first arrives at AWI headquarters, he passes the Henry B. Fried Memorial Clock Tower. Entering the front door, one sees the impressive Orville R. Hagans History of Time Display. To the visitor's right are the classrooms of the Marvin E. Whitney Training Facility. To the left are the spacious and well-appointed administrative offices. This is a truly magnificent building. Unlike the average modern office building, there can be no doubt about the ultimate purpose and meaning of this facility.

What goes on inside this building is even more impressive. While much of this is old news to the AWI membership, it bears repeating. With a staff of under a dozen, AWI is a publishing house with over a dozen titles in print; it publishes a monthly professional journal, *Horological Times*; it schedules and conducts professional training classes all over the country as well as the new 45-week Academy of Watchmaking at AWI Central; it provides the administrative and operational support to our six-thousand-member association; it has a large technical library and Time Display; and other activities too numerous to list here. Of course, the key to the Institute's success is the pride and dedication of its membership, which is the real secret to making any professional association work well for its members. Put quite simply, the Institute would not exist without this support.

As the new Executive Director of American Watchmakers-Clockmakers Institute, I have very simple goals. I don't plan to replace Milt Stevens, whose achievements and service have been so impressive. I intend for the torch to be passed without falter and to carry the proud legacy of the Institute into a bright future. With the guidance of the Board of Directors and the continuing active support of our members, the future of American watchmaking and clockmaking can indeed be bright.

# AWI – The 1990s

By Tony Riggio, CMW21

The decade opened with the appearance of new technologies that we take for granted today. Cell phones became portable, personal computers continued to find practical uses in homes and offices and the World Wide Web or Internet as we call it today, premiered. Communicate with a computer? And do we really need telephones that we can put in or pockets? How much does one really have to say anyway? Jerry Seinfeld premiered a TV show about nothing and we watched people “Survive” in one of the first “reality” TV shows.

Moving into its fourth decade, the Institute was now an established member of the horological community. Recognized industry luminaries continued their active support and contributions with Henry Fried donating a significant number of important documents, materials and books to the museum and library. The museum was being revamped and catalogued by the newly named Museum Manager and Clerk of Records Past President James Broughton. The Institute was now firmly established and the 30<sup>th</sup> anniversary celebration would feature technical displays and demonstrations and would welcome industry notables George Daniels, Dana Blackwell, Antoine Simonin and our own Henry Fried. Ewell Hartman presented Past President Harold Herman AWI’s highest award, Fellow, American Watchmakers-Clockmakers Institute. Alice Carpenter was asked to assume the Presidency and she served for two terms, 1990 through 1992.

In keeping with the expansion of educational opportunities, Milt Stevens detailed and outlined one of the Institute’s newest proposals for enhancing technical proficiencies. “Project Extend” would be developed to assist newly trained technicians, self-taught horologists and established technicians wishing to add to their proficiencies. In early 1991 Jim Lubic was introduced as the newly-hired Manager of Education and Technical Services who would spearhead and direct the mission of

Project Extend. As a WOSTEP graduate, former bench technician, instructor and director of the Ohio Valley Watchmaking Institute and Chairman of the Research and Education Council, Jim solidified AWCI’s commitment to education with full-time efforts.

AWI was now well recognized and contributed to many high profile projects and programs. National Geographic Society tapped the Institute’s expertise and collection for its long-running “It’s About Time” exhibition in Washington, DC. Ben Matz, Adjunct Historian, began a long relationship with the Smithsonian Institution that continues today with technical back up and product information.

The annual meeting of ‘92 concluded Alice Carpenter’s presidential term and Wes Door, First Vice President, was unanimously approved for the position of President and he served from ‘92 through ‘94. During this meeting another important change was recommended by the Affiliate Chapters who delivered a proposal to the Board to change the name of the Institute to include “Clockmakers” making the official name of the Institute The “American Watchmakers-Clockmakers Institute”.

1994 could be considered a true benchmark year for the Institute. In addition to increased traveling bench courses and the third successful year of classes under the Project Extend umbrella, discussions began relative to relocating the headquarters to a new and expanded facility. After an Executive Committee review and discussion it was decided that indeed, the Institute had outgrown its current offices and needed a new home to provide membership with the ever-expanding services. A building committee consisting of Marvin Whitney, Charles Cleves and Joe Cerullo was convened. A special meeting was called and preliminary details relative to funding and construction were arranged. By the annual meeting in June the

committee reported that a suitable building could not be found and that available finances would be best allocated to constructing a building that could be specifically configured to the immediate and future requirements. A parcel of land was located in Harrison, Ohio not far from the existing headquarters and in September of '94 approximately 40 individuals including AWI staff and dignitaries met with the Mayor of Harrison and Superintendent of Schools for Harrison to officially break ground. Completion was targeted for June of 1995 in time to coincide with the annual meeting of the Institute and the 35<sup>th</sup> anniversary of AWI.

Joe Cerullo succeeded Wes Door as President serving from '94 through '96. As would be expected he and his Board focused much of their energies on the building project. Not to neglect the mission of AWI the organization continued to present advanced training and in January of '95 the executive committee presented an all day seminar to over 100 AWI members in San Francisco. At the meeting it was announced that enrollment in watch repair curriculum continued to grow and REC school instructors attended a seminar from Remy Waelchli, Director of ETA Training to prepare for the resurgence of

mechanical timepieces. Jerry Jaeger rounded up the seminar with his two-day presentation of Atmos clock repair.

After frantic months of work the new headquarters was ready with only last minute finishing touches on the class rooms, museum and tower clock to be completed. Unfortunately, with only a few days to go before the grand opening, Marvin Whitney passed away unexpectedly. Henry Fried's recommendation that the classrooms be dedicated as the "Marvin Whitney Training Center" was approved and so it remains dedicated today.

An assembly of over 300 attended the new headquarters' dedication ceremonies on June 23<sup>rd</sup>, 1995. A former student of Henry Fried, Dr. Fred Beeler, funded the installation of the Tower Clock and it was dedicated to Henry Fried in appreciation. Following this and words from the varied dignitaries the banner ribbon was cut by committee members and Milt Stevens unlocked the front doors welcoming the attendees into the building to tour the new museum and class rooms.

The annual meeting proceeded as programmed, Joe Cerullo was reappointed as President for '95/'96 and Milt

# Ferrell & Co

Stevens announced his pending retirement in September of 1996 completing 30 years of dedication to AWI. Maxwell the Magician provided lighthearted entertainment at the dinner and in good spirit removed Ewell Hartman's shirt as one of his featured tricks of the eye. Wrapping up the evening, George Daniels presented a short talk and delivered greetings from the British Horological Institute and wishes from the Worshipful Company of Clockmakers and the Stockholm Watchmakers Guild.

1995 witnessed 14 new Project Extend classes in the new building and 28 additional traveling bench courses were scheduled to hit the road. All the while the staff worked diligently to bring the operations in the new facility up to par.

Project Extend courses remained popular components of the educational arm of AWI with 13 additional courses slated for the first six months of '96. All disciplines were covered: Repairing Ship's Chronometers, Beginning Horology, Clock Case Repair, American Pocket Watches, Basic Jewelry Repair for Watchmakers, and Roy Hovey's 12-day lathe course were the major seminars presented under the "PE" umbrella. All the while Jim Lubic was preparing for the first "Academy of Watchmaking" 45-week residency class to be presented on-site.

Buddy Carpenter headed up the Board as President for '96 and '97 and due to Milt Stevens' retirement one of his first official challenges was to fill Milt's large shoes with a candidate selected from three finalists, the result of an exhaustive search and recruitment effort. His choice was William Ewbank, a former CEO of a private career college in Cleveland, Ohio. Continuing the business of education, the Academy of Watchmaking opened with its first class in July of '96, Project Extend classes continued to fill to capacity and 51 days of traveling bench courses were scheduled.

Charles Cleves, First Vice President, accepted the nomination as President and served from 1997 through 1998. One of Cleves' major initiatives was the appointment of Jerry Jaeger to head a Certification Committee to review and assess the process, and to upgrade evaluations to meet industry standards and requirements. Almost 40 bench courses, 11 Project Extend seminars, 5 lathe courses and 2 jewelry repair courses were also presented in '97/'98. The second Academy of Watchmaking class graduated

and a third commenced. Not to ignore the future, Dewey Clark was appointed to lead a Strategic Planning Committee and his committee's findings were delivered to an Implementation Committee to develop a more definitive Strategic Plan.

Capping off another 10 years of progress, David Christianson became President in 1998 and served through the end of the decade. Keeping with educational traditions, David's term included a most successful educational symposium in September and October of '98 organized by Dewey Clark in cooperation with AWI and affiliate chapters in Maryland, Virginia and Pennsylvania. Most notable during David's term was the reorganization of the Industry Advisory Board that had been inactive for some time. In June of '99 he convened a meeting in New York with 40 leaders in the manufacturing and distributing arm of the industry opening dialog that had been inactive for years.

The Certification Committee re-examined existing certifications and concluded that AWI needed to restructure the process to be more relevant to modern technologies and the needs of industry and membership.

A decade that opened with mechanical movements slowly reappearing finds by the millennium that luxury consumers consider a "tic-toc" the standard for a true high-grade timekeeper. An industry that at one time supplied utilitarian devices was now struggling to keep up with the demand for not only mechanical timers but for one off specialty pieces that could cost upwards of 6 figures! One fly in the ointment was that the industry had missed a generation of technicians due to changing technologies. Truly, this positions the horologist for opportunities never anticipated and a national organization, AWCI, was poised to continue its contributions and impact on the mechanical arts.

Each president accomplished much and left their mark on the Institute and industry in ways far too numerous to detail within the confines of this short article. It should be appreciated that the Institute's leadership worked to benefit the organization and membership as a whole and set the stage for continued success and prosperity of the membership and the Institute.





Announces... For Our 10<sup>th</sup> Annual Seminar

# Watch Case/Bracelet Refinishing Theory & Fundamentals

**Presented by Mark Jones, CMW**

Senior Technical Instructor for Rolex USA

This seminar will cover the fundamental knowledge necessary to achieve a high quality polish. We will review the refinishing steps and stages and see the tools, equipment and compounds used for refinishing. We will also review some of the different metal surface finishes used on cases, bracelets and bezels. Case assembly and disassembly will be reviewed with time dedicated for Q & A, demonstrations of tools and refinishing techniques.

Mark Jones is the Senior Technical Instructor for Rolex USA. He has been a CMW for 29 years and WOSTEP certified 81 & 89. He worked for Vacheron & Constantin, New York as the Technical Director before joining Rolex where he has worked for the past 13 years.

**Date: Wednesday, August 4<sup>th</sup> 2010**

**Time: 9:00 AM to 4:00 PM**

**Location: Cincinnati Marriott at RiverCenter**

**Includes: Lunch Buffet**

**Deadline: July 15<sup>th</sup> 2010 (limited to the first 40 registrations)**

**Price: \$50.00 (includes lunch buffet)**

**The Chronometer Club members must pre-register. Please contact Wesley Grau, Exec. Secretary - wesleygrau@sbcglobal.net if you have not received your registration form.**

**NOTE: Registrations received after July 15<sup>th</sup> cannot receive lunch buffet**

# Countdown to the 50<sup>th</sup>

By Terry Kurdzionak  
Convention Committee Chair

## “On the road again...”

By the time you see this article, it will be sometime in July, and we'll be getting ready to drive to the convention in Covington, KY. I'll send Jack to New Hampshire to leave the dog at the doggie hotel (kennel) in the mountains, as that is a task most unpleasant for me.

I'll be busy packing luggage, vendor material, gag gifts for the banquet, decorations, and a cooler for the long road trip.

We will leave the Boston area on Monday morning, cross the state going through Springfield, MA where I was born, and then through the Berkshires before getting into New York State. Upstate New York is beautiful in the summertime, along the Erie Canal and by the Finger Lakes into Niagara wine country. Those of us from New England consider New York a BIG state to drive through. We would stop to visit Phyllis and Paul Wadsworth in the Rochester area, but they are always on the road to the convention when we are! We then drive through a rather short

section of northern Pennsylvania before finally reaching Ohio. At this point, if we have not already stopped for the night, I'll insist on it.

Tuesday morning, all rested and refreshed, we will make our way south through Columbus and on to Cincinnati. Arriving before the start of the convention will give us a chance to unwind (a watch and clock term) and take advantage of the shops and restaurants in Germantown, a few blocks from the Marriott. Yes, this is going to be a working vacation for me, but I am already looking forward to the road trip as I write this.

If you have never been to one of the AWCI conventions, I hope that these articles have piqued your interest. If you have been to the conventions, I am sure that you are coming back again this year. We are with good people and always have an enjoyable time. If you don't make it this year, chances are you will not be around for the 100<sup>th</sup>. But then again, you never know.



## AWCI 50<sup>th</sup> ANNIVERSARY COMMEMORATIVE BOOK

To commemorate the AWCI 50<sup>th</sup> Anniversary we will be publishing a special 50<sup>th</sup> Anniversary Book. Now is the time to reserve your ad space or patron listing. Patron listings can honor your family, remember a loved one, or promote your business. We will offer the following levels:

- Gold Patron - \$50
- Silver Patron - \$25

Patron listings must be received no later than July 10, 2010. Be sure to request your patron listing during convention registration or contact AWCI at 866-367-2924 or (513) 367-9800, ext. 301.

Advertising information is available by calling 866-367-2924 or (513) 367-9800, ext. 307.



# COMMITTEE VOLUNTEERS

Immediately following the AWCI Board of Directors annual meeting, the President of AWCI will appoint committee members for fiscal year 2010-2011. 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.

- |   |   |
|---|---|
| <input type="checkbox"/> Constitution & Bylaws Committee                  | <input type="checkbox"/> Convention Committee       |
| <input type="checkbox"/> Finance Committee                                | <input type="checkbox"/> Publicity Committee        |
| <input type="checkbox"/> Nominating Committee for AWCI Board of Directors | <input type="checkbox"/> Honor Awards Committee     |
| <input type="checkbox"/> Education Committee                              | <input type="checkbox"/> Strategic Action Committee |
| <input type="checkbox"/> <i>Horological Times</i> Committee               | <input type="checkbox"/> Ethics Committee           |
| <input type="checkbox"/> Membership Committee                             | <input type="checkbox"/> Case Mark Committee        |

Name \_\_\_\_\_ AWCI Membership No. \_\_\_\_\_

Spouse's Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_ Zip/Postal Code \_\_\_\_\_

Phone (home) \_\_\_\_\_ (business) \_\_\_\_\_

Fax \_\_\_\_\_ E-mail \_\_\_\_\_

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

Visit [www.awci.com](http://www.awci.com) and click on "Committee Volunteers" to submit this form electronically  
You can also mail this form to AWCI, 701 Enterprise Drive, Harrison, OH 45030  
E-mail: [jlubic@awci.com](mailto:jlubic@awci.com) or fax to (513) 367-1414

# AWCI's 50<sup>th</sup> Anniversary

August 4-8, 2010

## Convention & Educational Symposium



View of Cincinnati, OH from the Cincinnati Marriott RiverCenter. Photo courtesy of cincinnatiusa.com

### Cincinnati Marriott at RiverCenter 10 West RiverCenter Boulevard – Covington, Kentucky

Visit [www.awci.com](http://www.awci.com) for convention registration information or call Bonni at Stellar Meetings (732) 422-8888 for registration assistance

#### WEDNESDAY

12:00 - 5:00 PM  
3:00 - 6:00 PM  
TBA  
4:00 - 5:30 PM  
6:30 - 9:00 PM  
9:00 PM - Midnight

#### AUGUST 4, 2010

Chronometer Club Course (chapter members only)  
AWCI Convention Registration  
Chronometer Club Business Meeting (chapter members only)  
ELM Trust Meeting  
Welcome Reception - Cash Bar, Hot and Cold Hors d'oeuvres, Pasta Station  
Hospitality Suite Open

#### THURSDAY

7:00 - 8:30 AM  
7:00 AM - 5:00 PM  
8:15 - 12 Noon  
11:00 AM - 5:30 PM  
  
Noon - 1:30 PM  
1:30 - 5:00 PM  
5:45 - 9:15 PM  
  
10:00 PM - Midnight

#### AUGUST 5, 2010

Breakfast Buffet  
AWCI Convention Registration  
Affiliate Chapter Meeting, Keynote Speaker - Joe Thompson  
Spouse Off-Site Event - Luncheon, Hillforest Victorian Mansion  
Tour, Tea and Scones; View Antique Doll Collection  
Lunch on your own  
AWCI 50<sup>th</sup> Annual Board of Directors Meeting  
Optional Vendor-Sponsored Off-Site Event - Casual Supper and  
Tour of Cas-Ker Co. facilities      Transportation leaves hotel at 5:45 PM  
Hospitality Suite Open

**FRIDAY**

7:00 - 9:00 AM  
 7:00 AM - 5:00 PM  
 8:00 - 12 Noon  
 12:15 - 1:45 PM  
  
 2:00 - 4:00 PM  
 3:00 - 4:00 PM  
 4:00 - 5:00 PM  
 6:30  
  
 10:00 PM - Midnight

**AUGUST 6, 2010**

Continental Breakfast - **Sponsored by Bergeon**  
 AWCI Convention Registration  
 Trade Fair  
 Grand Buffet Luncheon  
**Sponsored by Trade Fair Vendors**  
 Industry Advisory Board (IAB) Meeting  
 Ladies Only Seminar  
 J.M. Dodson Perpetuation Fund Meeting  
 ELM Charitable Trust Annual Fund-Raising Dinner Cruise on River Queen  
 Meet Dockside - **Sponsored by Baume & Mercier**  
 Hospitality Suite Open

**SATURDAY**

7:00 - 9:00 AM  
 7:00 - 10:00 AM  
  
 8:00 AM - 4:00 PM  
 Session I 8:00-9:15 AM  
  
 Session II 9:30-10:45 AM  
  
 Session III 11:00 AM-12:15 PM  
  
 12:15 - 1:15 PM  
  
 Session IV 1:30-2:45 PM  
  
 Session V 3:00-4:15 PM  
  
 6:30 - 7:15 PM  
 7:00 - 9:00 PM  
 9:00 PM - Midnight

**AUGUST 7, 2010**

Continental Breakfast - **Sponsored by Eckcells**  
 AWCI Convention Registration  
 Educational Symposium - **Sponsored by SWATCH Group**  
 Testing Equipment Demonstrations by Bergeon, Greiner/Vibrograf, and Witschi  
 Quality Control by the Numbers—Tom Schomaker, CMW21  
 Introduction to the World of Ronda—Hanspeter Herzog  
 20<sup>th</sup> Century Versus 21<sup>st</sup> Century Shop Technology—Greg McCreight  
 Stable Investing During Unstable Times—Dale Coates  
 Preparing for the CC21 Exam—Jerry Faier, CMC21  
 Introduction to the World of Ronda—Hanspeter Herzog  
 Preparing for the CW21 Exam—Wes Grau, CMW21  
 Preparing for the CC21 Exam, Part 2—Jerry Faier, CMC21  
 Stable Investing During Unstable Times—Dale Coates  
 Quality Control By the Numbers—Tom Schomaker, CMW21  
 The Evolving Watch Battery—Henry Kessler  
 “Lunch on the Go”  
 Educational Symposium - **Sponsored by SWATCH Group**  
 Preparing for the CW21 Exam—Wes Grau, CMW21  
 Introduction to the World of Ronda—Hanspeter Herzog  
 20<sup>th</sup> Century Versus 21<sup>st</sup> Century Shop Technology—Greg McCreight  
 The Evolving Watch Battery—Henry Kessler  
 Q & A: Clock Business Practice—Jerry Faier, CMC21  
 President’s Reception  
 Rolex AWCI ELM Charitable Trust Awards Dinner - **Sponsored by Rolex USA**  
 Hospitality Suite Open

**SUNDAY**

7:00 - 9:00 AM  
 8:00 - 10:00 AM

**AUGUST 8, 2010**

Continental Breakfast  
 AWCI Board of Directors Meeting (Concludes)

All times, speakers and activities are subject to change without notice.

# AWCI Finance Committee Teleconference Report

## Report of AWCI Finance Committee Teleconference held on the evening of June 1, 2010

Committee members in attendance: Henry Kessler, Tom Jeswald, John Safranek, Dennis Warner, Jack Kurdzionak (treasurer and chairman). Guest: Mark Butterworth, AWCI President.

Motion 1: To continue the engagement of the firm of Rudler and Associates as our auditing firm for the 2010-2011 fiscal year as per the attached letter of engagement from Mr. Boschert. The audit for fiscal year 2009-2010 will begin no later than September 1, 2010 and will be completed by October 31, 2010. AWCI management will be responsible to present the supporting documentation in order for Rudler to meet these deadlines.

Motion 1 passed the committee unanimously. Chairman did not vote.

Motion 2: Made by Dennis Warner, seconded by John Safranek, to permit AWCI to extend the 2009-2010 budget by one month (July 2010). Revenues and expenses of 1/12 (8.34%) of the current budget will be used for this budget extension.

Rationale: The current fiscal year has less than four weeks remaining. The committee requests this budget extension so that they will have more time to prepare a budget for 2010-2011.

Motion 2 passed the committee unanimously. Chairman did not vote.

The committee has received three alternative budget proposals from AWCI management for the fiscal year 2010-2011. Budget 1 assumed no increase in regular dues of \$137/year. Budget 2 assumed an increase of \$7 to \$144/year. Budget 3 assumed an increase of \$12 to \$149/year. The remainder of the teleconference involved discussion of these proposals. It was decided by consensus of the entire committee to return these proposals to management for further clarification. The treasurer will be submitting a list of questions to management next week regarding these proposals.

Submitted by Jack Kurdzionak, treasurer. June 4, 2010

## Executive Director's Message

Continued from page 3

We also had a good turn out of AWCI members who volunteered to work in our booth at this year's JCK Show. Jeff Lindquist, CW21 and Joe Brunski, CW21 of the Phoenix, AZ area, and Aaron Recksiek, CW21 from Salt Lake City, UT. Thanks for volunteering to represent our trade, and thank you for giving your time.

This year we also had a first—we presented our first lecture at a trade show. This was organized by IAB Chairman Henry Kessler. AWCI member Jean-Jacques Mamie of California was recruited by Mr. Kessler. Mr. Mamie

did a great job representing AWCI. Thank you Jean-Jacques; it was a pleasure meeting and working with you.

Looking into the future, AWCI looks forward to becoming regular presenters at both the Smart Show and the JCK Show. Hope to see you at one of these shows next year.

Thank you to the sponsors and volunteers for making the AWCI Trade Fairs a success!

### HKTDC Hong Kong Watch & Clock Fair (6-10 September 2010)

**Come Visit the Fair with Travel Reimbursement of USD230!!!**

Fair Details	<ul style="list-style-type: none"> <li>● The World's Biggest Timepiece Event</li> <li>● Over 700 exhibitors from 17 countries &amp; regions</li> <li>● Venue: Hong Kong Convention &amp; Exhibition Centre</li> <li>● Webpage: <a href="http://www.hktdc.com/hkwatchfair">www.hktdc.com/hkwatchfair</a></li> </ul>	
Major Exhibits	<ul style="list-style-type: none"> <li>● Brand Name Watches &amp; Clocks</li> <li>● Complete Watches &amp; Clocks</li> <li>● Part &amp; Components</li> </ul>	<ul style="list-style-type: none"> <li>● Machinery/ Equipment</li> <li>● Packaging</li> <li>● Trade Services</li> </ul>
Special Highlights	<ul style="list-style-type: none"> <li>● <b>Brand Name Gallery</b> – A premium showcase of licensed and original branded watches, as well as fine fashion labels and designer collections</li> <li>● <b>Pageant of Eternity</b> – Premium section dedicated to premium exhibitors showcasing complete timepieces</li> <li>● <b>Asian Watch Conference</b> – Latest trends &amp; developments in design &amp; brand marketing</li> </ul>	
Special Offer for 1st-Time Buyers	<p style="text-align: center;"><b><u>HKTDC will provide a Travel Reimbursement of HKD1,800 (approx. USD230) when you visit the fair for 2 days</u></b></p>	

#### CONTACT PERSON

For further information, please contact Ms. Michelle Erickson of the HKTDC Chicago Office by telephone at (312) 726-4515, by fax at (312) 726-2441, or by email at [michelle.erickson@hktdc.org](mailto:michelle.erickson@hktdc.org).

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**Visit [www.hktdc.com/hkwatchfair](http://www.hktdc.com/hkwatchfair) for more information**

## Why Bother with Truly Learning Something?

Many learned skills and behaviors now seem obsolete since one can access an immense amount of information on the Internet from almost anywhere in the world by using a wide variety of devices. Why bother learning how to read a road map when you can be directed by an app on an iPhone, Droid, BlackBerry, or some other handheld device? Many say that the old fashioned road map is totally obsolete and unnecessary. Why, just a few days ago we were returning from a mountain climb in southern New Hampshire, when one of our party said he could direct us home a better way than that shown on a road map by using the GPS on his Droid. Sure enough we arrived home safely, but only after getting lost and going several miles out of the way.

There was a recent news item about Google being sued by a pedestrian in Utah. She was visiting Park City, Utah and wanted to walk to her destination. She used her BlackBerry to access the Google Map app to guide her. Google Maps suggested a walking route along with a warning that the route was a state road with no pedestrian sidewalks. Google Maps also warned that the vehicular traffic on this route traveled at a high rate of speed. Sure enough she was struck by a car and injured. She has filed two lawsuits: one against the car's driver and the other against Google for suggesting that route. Why bother using any common sense when your BlackBerry replaces your brain?

Why even bother going to a school, college, or a university to get an education when you can learn all that you need to know by going on line? Why waste your time and money by enrolling in a continuing education class to upgrade your skills when you can go to the Internet and see how really easy it is to operate a watch repair and sales business? Personally I am somewhat old fashioned. When I need a physician, attorney, or some other professional person I check their credentials to see that they actually had a formal education and are certified in their area of expertise.

*Jack Kurdzionak*

## Arnold's New Neighbor

This article, first published in the recent April column, has generated more comments than any other in recent

memory. Arnold's watch and clock repair shop is located in a suburban strip mall with several other tenants. Recently, one of the neighboring stores had been rented to a battery specialty franchise much to Arnold's dismay, since the new tenant also offers watch battery replacement service. Another reader, Phil Battista, offers the following advice for Arnold:

"Jack, I don't normally reply to questions but I thought your column in April of 2010 about Arnold's Watch Repair might deserve a reply. My advice for Arnold is to go on with his business as usual. I would also say to be friendly to the new "Batteries R Us". I don't think that they will hurt Arnold's business at all. The fact is that they may bring some business into Arnold's that he did not have before, because of problem watches that need more than a battery, which could turn into a sale. The people that want to go to "Batteries R Us" probably would not go to Arnold's anyway. It is my opinion that it is better to have a mall that is full rather than have empty stores. Arnold should just keep doing quality work and not lower his standards or prices. Tell Arnold not to let free enterprise mess with his mind just do the best he can."

## Trade Work

Trade work is a term most watchmakers and clockmakers have heard from the first day they sat at a bench. Although most have heard and used the term, it is not clear how many are able to define, "trade work". Does it mean that one trades work with another such as a jeweler who repairs jewelry for the watchmaker while the watchmaker repairs watches for the jeweler? They literally trade work. Does it imply that one works mostly for others in the trade as an independent contractor? A search of the Internet is not much help in defining "trade work". The term is not commonly used in other professions or crafts. It is one of those terms that only mean something to a watchmaker, clockmaker, or jeweler. "Trade work" reminds this writer of Justice Potter Stewart's comment when he was asked what pornography is. He said it was hard to define, but that "I know it when I see it." If "trade work" is difficult to define, then "trade pricing" is even more elusive. One watchmaker we know defines trade prices as what he charges his clients for his work, and retail prices are what the clients receive when they resell his work.

For our purposes here, I will use the term “trade work” as what a watchmaker provides to someone who then resells the work. “Trade pricing” will be what a watchmaker charges for the “trade work”. The majority of American watchmakers do trade work labor in very small shops, often with only one or two employees. These watchmakers are constantly being squeezed by pricing pressure from both sides of their business. On one hand, suppliers are raising the prices watchmakers must pay for their parts and supplies. On the other hand, these watchmakers are pressured by their customers for lower cost work, larger discounts, and extended payment terms. Coping with the opposing pressures of higher costs for parts and supplies coupled with demands from customers for lower prices requires a comprehensive strategy to survive in this business environment. AWCI Director Ernie Tope and the staff of Masterpiece Watch Restoration LLC have developed such a strategy that clearly defines what qualifies for trade work done in their shop. Their policy statement includes:

- A. Trade accounts must be set up in advance of Masterpiece Watch Restoration receiving the first job to automatically receive the discount.
- B. To qualify for the discount you must commit to sending a minimum of 5 watches per calendar month for service.
- C. Discount will be 30% of repair/restoration cost.
- D. The shipping fee is not discounted but multiple orders can be combined to reduce fees.
- E. Most (but not all) estimates are at no charge.
- F. Jobs will be billed to the sending company and not the customer.
- G. If Masterpiece Watch Restoration deals directly with the individual customer who owns the watch (billing, status inquiries, mailings, etc.), then the discount will drop to 20% (a 14% increase).
- H. Any estimates not authorized for repair will incur a return shipping fee. Once again, jobs may be combined to reduce this cost.

I. Vintage watches that require a full dismantle to get a more accurate estimate on the repair cost will incur a fee. This fee must be paid in advance and will be deducted from the repair total if an authorization for the repair is given.

J. All authorized jobs will require a 50% deposit before work is begun unless prior arrangements have been made with Masterpiece Watch Restoration. Payments can be in the form of a personal or business check, money order, MC, Visa or Discover card.

K. Florida sales will incur sales tax unless a State resale number is given. Out of state orders are exempt from paying sales tax.

Masterpiece Watch Restoration requires that a trade account must be set up in advance and that trade accounts must send a minimum of five repairs per month to qualify for a 30% discount from MSRP. They have defined a trade account for their shop. You are either a trade customer or you are not. Three repairs a year does not qualify for any discounts.

Payment terms are crystal clear. They require a 50% deposit by check, money order, or major credit card before starting any work. They get paid for their work without delay.



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Third party consultations are available from Masterpiece, but they are subject to an additional charge of 14%. If they have to consult with the trade account's retail customer, there is a fixed fee involved.

Finally, they collect all applicable sales taxes as required by their state law. It keeps them compliant with the law. They do not wish to be on the losing end of a sales tax audit.

There is no room for ambiguity in the policies listed. It reflects serious consideration on the part of Masterpiece Watch Restoration in that they have clearly defined their customer base, their pricing policy, and their compliance with the law. If you have no policy for your own shop, why not think about one and put it in writing? Make a policy and abide by it so that all customers understand what you require from them and what they can expect from you.

*Jack Kurdzionak*

### **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 are suggested by the author and contributing members and are not endorsed by any manufacturer, supplier, advertiser or AWCI itself.



## **--ATTENTION AWCI MEMBERS--**

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# Bulletin Board

## ITEMS STILL NEEDED

### Universal Geneve Center Wheel and Seiko Cannon Pinion

Marty Kale, Brookline, NH, is looking for a source for a Universal Geneve center wheel and a Seiko 7123A cannon pinion.

### Telechron B13 Rotor

Richard Adams, Nashua, NH, is looking for a Telechron B13, 1 RPM rotor (M3609); operational preferred but OK as long as it can be rebuilt.

### Patek Philippe 8180 Detent Lever

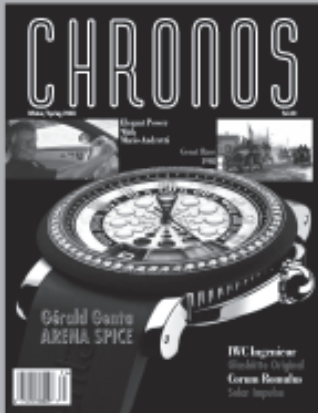
Donald Yax, Howell, MI, is looking for a source for a detent lever for a Patek Philippe 8180.

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



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Company Name \_\_\_\_\_  
Type of Business \_\_\_\_\_

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# 21<sup>st</sup> CENTURY CERTIFIED WATCHMAKERS EXAM SCHEDULE

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August 16-19, 2010	North Seattle Community College	Seattle, WA
August 23-26, 2010	Lititz Watch Technicum	Lititz, PA
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# Book Review

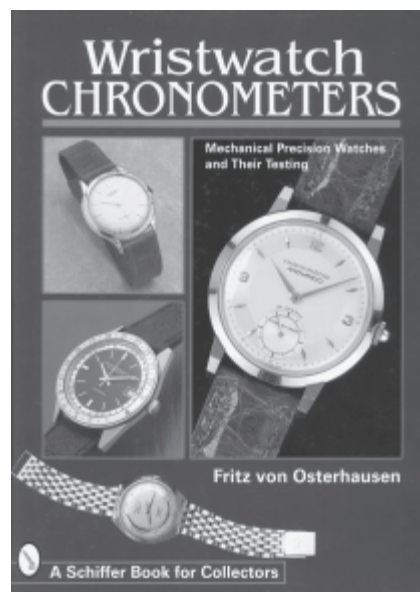
By David Fahrenholz

*Wristwatch Chronometers: Mechanical Precision Watches and Their Testing*, by Fritz von Osterhausen, A Schiffer Book for Collectors

This is a beautiful hardbound book that is big and glossy. The commentary by the author, Fritz von Osterhausen, is minimal but effective. The primary purpose of this book is to discuss testing of Chronometers and the Swiss manufacturers' models that are tested.

The first half of the book goes into quite a bit of detail on testing procedures. These procedures are the requirements for submission, formulas for creating results, threshold levels and possible errors and various charts and original documentation of testing. Some of these photocopied certificates and test results are quite detailed and shed a lot of light on the process and what happens when a model fails or passes.

The second half details various models and imparts many specific details that help fill in any gaps in knowledge a collector might have in the area of cases, manufacture dates and movement originator. The photography, in most cases, is outstanding with a mix of color and black and



white. The detail level is very nice and many readers will see watches that they likely have never seen before.

I highly recommend this book for any collector wanting to round out their collection on Chronometers.



## Technical Discussion & Parts Forum

The American Watchmakers-Clockmakers Institute **Technical Discussion & Parts Forum** is available online at [www.awci.com](http://www.awci.com) Click on Technical Discussion & Parts Forum in the blue 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, tools and discuss technical aspects of watch and clock repair. This board is not open to generic advertising posts; therefore, web addresses and e-mail addresses should not be included in public messages.

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## Rare Patek Philippe “Golden Rule” Wristwatch Highlights New York’s June Fine Watches and Wristwatches Sale

Bonhams New York’s June 15<sup>th</sup> sale of Fine Watches and Wristwatches, was met with excitement amongst collectors. Consisting of 88 lots, the highly anticipated auction offered several excellent collecting opportunities including a number of rare and unusual pieces by makers such as Patek Philippe and Rolex.

Proving to be the top lot of the sale was a rare triple calendar Ref. 6036 Rolex. Represented by a gold example made in 1952 the lot sold strongly bringing \$103,700 against an estimate of \$80,000 - \$120,000.



*Lot 185 - Rolex. A very fine and rare 18K gold wrist chronograph with triple calendar Oyster Chronographe, Anti-magnetique, Ref. 6036, case no 917032, circa 1952. Sold for \$103,700*

Also drawing bidder attention was a fine, 18K rose gold, Ref.5059R Patek Philippe wristwatch. Featuring automatic center seconds with retrograde perpetual calendar and moon phases, the lot brought \$45,750.

A Ref. 130 Patek Philippe wrist chronograph also performed strongly. Sold in 1945 with gold Breguet numerals and spade hands, the piece realized \$45,150.

Sparking no less than a bidding war was an extremely rare, circa 1957, Hamilton Masterpiece “Barbizon” wristwatch. The 18K white gold and diamond watch was discovered in a small collection of estate jewelry, still in its original display packaging. Perhaps the rarest watch to make its auction debut, it soared past its \$3,000-5,000 estimate to bring the outstanding final price of \$41,480 – quite possibly the highest price ever paid for a Hamilton.



**Lot 123 - Hamilton.** An extremely rare 18K white gold and diamond wristwatch with original display box and packaging Masterpiece “Barbizon”, case no. B34667, circa 1957. Sold for \$41,480

Also greatly outperforming was a very fine and rare 18K gold Ref. 2552 Patek Philippe “Golden Rule” watch presented by then Senator Lyndon B. Johnson to his friend and political ally, Senator George



**Lot 182 - Patek Philippe.** A fine and rare 18K gold presentation “Golden Rule” wristwatch and bracelet given by Senator Lyndon B. Johnson to Florida Senator George A. Smathers, 1956 Ref. 2552, Movement No. 762499, Case No. 693476, the bracelet signed, Tiffany & Co. Sold for \$33,550

you.” Surpassing its estimate of \$12,000 - \$18,000 the watch realized \$33,550.

Another Patek Philippe work to exceed expectations was a fine, circa 1895, 18K gold openface watch. The minute repeating watch sparked a session of competitive bidding, more than doubling its estimate of \$6,000-8,000 with a final price of \$17,080.

A. Smathers. The Golden Rule was a deeply felt part of LBJ’s political philosophy and occurred regularly in his speeches and public pronouncements. The dial of the remarkable watch reads, “Do unto others as you would have them do unto

Other watches performing well were a fine steel Ref. 6263 Rolex Cosmograph Daytona bracelet watch which realized \$20,740; a fine, Rolex 18K three color gold and diamond automatic calendar bracelet watch that fetched \$19,520; and a very fine, platinum lady’s automatic bracelet watch with a diamond set dial by Rolex which brought \$15,250.



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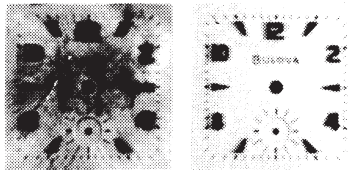
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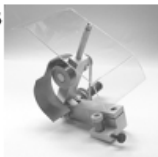
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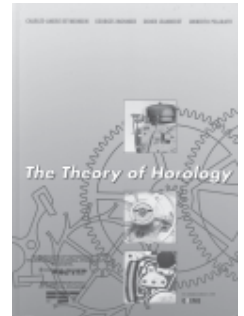
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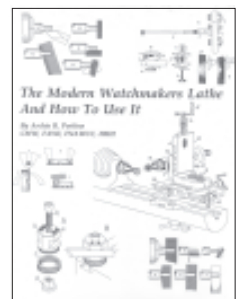


## ***The Modern Watchmakers Lathe and How To Use It***

By Archie B. Perkins, CMW, FAWI, FNAWCC, FBHI

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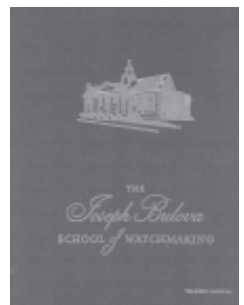
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