



Meeting highlights

Definitive Presentation on Never-Wind Clocks

Anyone with an interest or need to understand the inner workings of a Tiffany Never-Wind clock would do well to study the presentation we saw at our last meeting. This was the newest slide show from the national



library, which was the product of six years work by members of the "Western Electrics" Chapter (133), including our own Jay McAlister, who was on hand to run the slide show.

While many case styles were shown, all reflective of the time period in which they were built, the presentation was primarily technical. It focused on the various mechanisms and electrical devices found in these clocks, including

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This month's program

Watch Repair Video

This month we will view the first of three videos in the Tascione Pocket Watch Course. Although I am a "clock person," I love to look at the many beautiful pocket watches that I encounter at the various marts. I think they are wonderful mechanical objects and display the beautiful workmanship that has been lost in this age of computers and electronics.

My wife, Marsha, and I do have a small collection of watch holders and when you have watch holders, you have to have watches to display. We have about 10. I like to have them at least run, so I have had to send most of them off to a watch repairman.

I have also had occasion to have platform escapements cleaned and serviced and I have had to send these off too even though I knew that most of them just needed a good cleaning.

I checked out three of the Tascione Watch videos just to see what I could learn from the step-by-step videos showing disassembly, cleaning, and reassembly and oiling. Oh my goodness. I was so afraid of dealing with those little screws and fragile pivots. Well, after watching the videos and gaining some confidence,

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Message from the President

A Letter Home

The NAWCC School of Horology is an extraordinary facility. The building used to be a beer distributorship, and the adaptation to a school is ongoing. The downstairs has three main rooms: the watch repair class, a room that doubles as a Sherline lathe workshop and break room (usually stocked with high-calorie snacks), and a lecture room.

To get to the clock repair class, you must walk through a narrow transition room with a two-story ceiling, and up a flight of wooden stairs. There are fourteen

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What every member should know

It's that time again. We need volunteers to come forward to take over duties on the board of directors starting in July. We have a very active chapter poised to accomplish great things in the coming year. Be part of it! See any of the board members to volunteer.

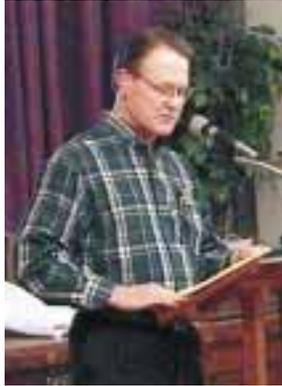
Did you know about the video tapes in the chapter library? Charles will have a video list available at the upcoming meeting.

Do you have your current Chapter 69 membership card? If not, see Mary Ann Wahlner at the meeting to pick it up.

Meeting Highlights *(from page 1)*

many variations in the movements that were introduced over time. There were diagrams galore, showing the function of each important part. Also included were tips on adapting modern devices – diodes, resistors, and battery holders – to replace inoperable original parts.

The Beginner's Corner presentation was delivered by Terry Cunningham. Titled "So You Want To Be A Clock Man?", this brief talk covered the basic requirements for anyone who wants to get serious about buying, selling and repairing clocks. Terry had many good suggestions for how to go about getting training in the subject. One



good place to start is the clock repair course offered by Charlie Davis in Pomona. He also pointed out that NAWCC has "Suitcase Classes" that are presented around the country. The Beginner's #101 class costs \$250 for 4 days. Another possibility is to find a mentor/teacher who would be willing to let you look over his shoulder while he does his repair work.

Terry said that you should be prepared for significant investments in both time and tools.



We had a very active Show & Tell at this meeting. Larry Squires displayed an interesting 400-day torsion pendulum movement. Made in Germany in 1875, the movement was designed to fit into a typical R&A case. He said he has the case and was just finishing the work on it so he can put the movement together.

Terry Cunningham displayed his finished Seth

Thomas #6. This was the same case that he brought to Jim Gilmore's program at the November meeting – before refinishing. Those of you who were there will remember the discussion about the difference in stain between the interior and the exterior of the case. Terry explained how he achieved a more even finish and had some parts fabricated for the case. It looked great!

John Neely shared his modern railroad-style pocket watch.

Gene Osten displayed an 1884 Rockford pocket watch with a salesman's clear backed display case. The

camera let everyone get a good look at the movement, including the beautiful damascening.

In keeping with his program, Jay McAlister brought a Tiffany Never-Wind pendulum clock (picture on page 1). He said the movement was very typical, and the clock was probably the most common model.



Charlie Davis brought flakes of rabbit skin glue. He puts his in a baby food warmer to melt it. He feels it works better than the modern glue and is easier to work with. It works like most any hot glue, setting as it cools, which happens very quickly.

Les Lesovsky brought an English "Drop-Dial" style case from Dublin. Some people call it a Pub clock. He said the case is quite ordinary but that it has a fusee movement in a Black Forest frame. He said the heavy brass movement is unusual for a Black Forest product and that it was made between 1850 and 1900. He had previously submitted a digital photo of the movement which was displayed on screen while he talked about it.

Tascione Video *(from page 1)*

I bought some good screwdrivers, watch tweezers, some One Dip and I was ready to give it a try. A friend gave me a Waltham movement that needed servicing. It would run for a few minutes and then stop. It has seven jewels and is the large, 8-day type Waltham movement that was used in cars and used in the "Waltham Baby Banjos". I knew that I couldn't remove the main spring, as I didn't have a proper winder, but I felt somewhat confident in that I could at least disassemble and inspect the movement, oil it properly and reassemble it. After reassembly, and to my surprise, it actually worked and is still running. Hey, maybe I will start calling myself "Terry the clock and watch guy". No way. Disassembly and reassembly is a long way from real watch repair. I just want to be able to clean and oil platform escapements and maybe service my own watches to determine if they need to go to a qualified repairman.

I learned a lot from the Tascione videos and gained enough confidence to attack a watch movement. Come to the meeting and view the first set of lessons. You may want to check out the remaining videos from our library.

— Terry Cunningham

Dealing with Steel

I thought it would be nice to share with you all a little of what I've learned in my time in Columbia. I hope you find it useful. — D.W.

Steel is the second most used metal in clock movements, and its importance for both parts and tools cannot be overstated. This article will address using heat to manipulate the properties of steel to suit the task at hand.

There are three primary states of steel: annealed, tempered, and hardened.

Of the three, the annealed state is the “softest” at room temperature. Annealed steel is at its most malleable and workable. To achieve this state, the steel must be heated until it glows cherry red, then cooled as slowly as possible. The cooling takes some planning; air cooling will generally not provide an annealed state! One of the trickiest things to anneal properly is the end of a mainspring (for example, when you need to repair the end of a hole-end spring). One cooling method is to use a large heat sink such as a container of heated sand, or brass or iron filings. Heat your work over this container, heating the sink material at the same time. When cherry red appears, immerse your work in the material and continue to apply heat, then, ever so slowly, remove the heat. Let the work sit until it is cool. A properly annealed spring end will allow you to bend it so that it holds the new shape. If it's still springy, you cooled it too quickly.

Hardened steel acts just the opposite of annealed. In its hardest state, steel can only be worked with very hard tools (diamond or carbide). It is brittle; it will not bend, it will break instead. It is not particularly useful in clocks with the possible exception of “strap” escapement pallets (even there, some tempering may be in order). Achieving a hardened state is the easiest of the three. Heat the metal to cherry red, then plunge it immediately into water, brine, or oil to cool it as rapidly as possible. Be careful not to overheat the steel. If your steel has a flaky residue on it after cooling, you may be burning off some of the carbon in the steel. If you burn off all the carbon, what remains is iron, a useless metal for most clock applications.

Nearly all the important steel parts of a clock are tempered. These include pivots, springs, hands and usually pallets. Proper tempering can be even trickier than annealing, especially if you don't have a calibrated oven for the purpose. The goal is to heat the steel thoroughly and evenly to a particular temperature, then quench it to “freeze” that state. The temperature you

choose is dictated by the intended use of the steel. The higher the tempering heat, the “softer” the steel will be. If the end product is going to be a hammer head, brittleness is not desirable, so it is tempered at a higher temperature than, say, a graver for turning brass on a lathe.

To temper, you start with steel that's been hardened and then polished to remove all oxidation. The tempering process causes a layer of oxides to appear on the steel and a correlation between the color of those oxides and the temperature can be established. Many reference materials will tell you, for example, that 450°F will yield a “pale straw yellow” (suitable for a graver), or 570°F will give a dark blue (for your clock hands). This is often accurate, but can be affected by the alloy or impurities in the metal, or even air pollution. Testing may be needed to find the right heat for your steel.

While it may be possible to achieve a particular color holding the work over an alcohol flame, chances are, only the surface has been heated to the desired temperature. On a thin or oddly shaped piece, getting even heat is also problematic over a flame. On items that come to a point, such as gravers and arbors, there is a tendency for the thin parts to heat much more quickly than the rest. The result can be too much softening of the most critical part of the work.

If you are working with an oven (the preferred method), after you've placed the work inside and your oven has reached the desired temperature, the work should be left in for one hour per inch of thickness.

Fantastic Learning Opportunity

If you'd like to get started in clock repair, this is an opportunity you won't want to pass up. Chapter 69 member Ray Marsolek is offering a one-day class to familiarize students with disassembly, re-assembly, and basic repairs on a typical American time & strike clock movement. He will cover the tools you'll need, as well as spring cleaning, pivot polishing, and bushing replacement. Students will not need to bring any tools.

We need a minimum of 4 students and there's a maximum of 6. The class will cost only \$25, which includes lunch! It will take place on Saturday, February 16, 9:00 A.M. to 3:00 P.M. at Ray's house, 26369 Hillcrest in Lomita. You can reserve your spot in the class at the next meeting or by calling Ray at (310) 326-2999.

President's Message *(from page 1)*

watchmaker's benches arranged in a shallow horseshoe, inside which the teacher, Roger Chastain, lectures, demonstrates, and keeps an eye on the students' work. The room is currently cramped with old, large pieces of equipment (including an antique treadle-operated lathe), which will soon be moved to an attic area.

The school, and in particular the clock program, is experiencing a tremendous revival of interest in its programs. The C-100, C-200 and C-300 classes I have attended have been the biggest classes they've had – typically 16 students in each! While this success is helping to make the school profitable, the number of students also presents challenges for the teachers and the facility.

The most critical need is tools. Each student is issued a toolbox at the beginning of each session, and every tool is checked off of an inventory. While we are encouraged to bring and use our own tools, it is not always possible to do so. I'll tell you this: The one tool I regret not bringing with me for the first class was Charlie Davis's pivot polishing device! (I'm told we get to use a lathe to polish pivots in C-400.)

But some of the tools we are given have seen better days; careless students have broken many of the drills. The small files we're given are dull and largely unsuitable for shaping gear teeth. Expensive screw slot files, necessary for splitting hand collets, for example, are simply unavailable. Other tools must be shared. On the whole, though, we are learning what we need to know and getting a solid foundation. If you are in a position to donate tools to the school, I hope you'll contact either Roger or Dan Nied.

The lathe workshop is excellent. The lathes are all new Sherlines, and Roger is a stickler for maintaining them in peak condition. The only downside to that room is the constant temptation of that pile of doughnuts on the break table!

I've tried to paint a picture of the school facility for you. As time goes on, I hope to share with you some of what I'm learning. (See the article on steel for the first installment.)

I'm sorry I'll miss the February meeting, but I look forward to seeing you all at the March meeting. I will bring with me some of the work I've done: a blued clock hand, replaced main wheel teeth, replaced barrel teeth, a brass click spring, and the first thing I ever made on a lathe, a chess pawn! See you then.



GET WELL WISHES

Word has reached us that Bernie Pollack has undergone some serious medical procedures and is now recovering.

The Chapter sends its best wishes for a speedy and complete recovery!



Wayne Preston presented us with a check for \$350 from the Pac Rim Regional. This was for the Chapter 69 members who volunteered their services at the mart. Thanks to Wayne, the Regional, and our volunteers!

General Meeting Minutes January 4, 2002

Dave Weisbart welcomed everyone; and told us a little of his experiences in Columbia, PA. He also welcomed all our guests: Randy Ema, George Heyer, Bill Acuna, and Dennis Woodson. The December minutes stand as approved as published in the Tic Talk Times; and the next Director's meeting will be held at Marsha and Terry Cunningham's house on Wednesday, January 9, 2002.

Announcements

Upcoming Marts: The L.A. Regional will be February 7, 8, and 9.

The fifth annual Inland County will hold their mart on April 27.

The 2002 National will be held in July.

Joe and Ruth Sherman are selling off all their clocks due to poor health. On January 11 and 12, they will sell their clocks at the Cracker Antiques Shopping Center for 50% off.

Those of us who put clocks on display at the Bradley Terminal are being asked for an extension until the end of June when J.D.O. Exhibits will have funds to change the display. If anyone needs to take their own clocks out of the display early, they need to call Jim Olson at 818-762-9011 to make arrangements to get theirs early. The insurance coverage will also be extended.

Wayne Preston talked about the success of the Del Mar Regional in spite of the September 11 attack on the World Trade Center. They were gracious to send back the table registration monies to all those people west of the Rockies who were not able to get there. Wayne also thanked our Chapter and those who helped on the registration and presented us with a check for \$350.

Old Business

Dave read the card from our caretaker, James: "Thanks for your generous gift this Holiday Season. Here's wishing you all a Happy New Year and May the blessings of the Almighty be with you, your family and friends."

New Business

Larry Squires asked for help from individuals in our Chapter on his live auction at the National Convention being held in July. He needs help in the registration of clocks and watches that will be put into the auction. He told us that Bob Schmitt will be the auctioneer, and that reserves may be put on any clocks or watches being put into the auction.

Bill McNelis gave us an update on the National convention. He assured us that it is going to take place. He thanked Marsha and Terry Cunningham for taking fliers on registration for the National to the San Jose mart and talking to everyone there about it. He asked that all members "talk it up" to all or any clock or watch people they meet. Bernie Pollack will be sending out postcards to all chapters west of the Rockies to remind them of the National. Bill also thanked Julie Stevens and Les Lesvosky for their tremendous help.

Bill discussed the letter our Chapter wrote to the National headquarters asking for clarification on who is responsible for losses, if any. The 2002 committee has been asked to pare down on all expenses, and have cut out the Hospitality and all souvenirs as well as cut back on entertainment at the banquet. Wayne Preston asked for a "list of needs" for volunteers to look at to decide what areas they would like to sign up for. Again, we need everyone's support.

Beginner's Corner

Terry Cunningham gave the talk on "So you want to be a clock man!" He offered seasoned advice on the training, tools and time required to become serious about buying, selling and repairing clocks.

Charlie Davis announced that Pomona School District is hiring a person to do a watch repair class but that it will have restrictions of experience. He told us that there is currently a waiting list for that class when it gets started.

Program

Jay McAlister put on a slide program of the Tiffany Never-Wind Clocks. Roy Crow, Lloyd Porter, Steve Rene and Jay put together this program of slides on technical drawings of these battery-operated clocks. It took them about 6 years to finish it and has approximately 55 slides. Jay stated that the purpose of this program was to give an education of the real "meat" and "technical" aspects of the Never-Wind's and not just pictures of different clocks. Even though they are marked Tiffany, they are not related to Louis Comfort Tiffany.

Show and Tell

Larry Squires brought a German 400-day movement from 1875 which is designed to fit into a typical R&A case.

Terry Cunningham brought his Oak Seth Thomas #6 that he had at the November meeting before it was refinished.

John Neely shared with us his modern RR watch.

Gene Osten brought a Rockford display-case watch from 1884.

Jay McAlister brought a Tiffany Never-Wind pendulum clock.

Charlie Davis brought flakes of rabbit skin glue.

Les Lesvosky brought an English "Drop-Dial" clock from Dublin. It had a fusee movement in a Black Forest frame.

Dave Weisbart thanked Pat and Bud Saiben for the refreshments, and the raffle winners were: Paul Campbell (tea towels); Terry Cunningham (enamel pin); Cora Lee Linkenhoker (box of miscellaneous items); Tom Pierce (Liquor); Fred Sparks (clamps)

The meeting was adjourned at 9:40 p.m.

Respectfully Submitted, Marsha Cunningham, Secretary

Directors' Meeting Minutes January 7, 2001

Terry Cunningham opened the Board Meeting at 7:45 p.m. Those in attendance were: Sally and Angelo DiMino, Cora Lee and Bob Linkenhoker, Ray Marsolek, Charles Register, Mary Ann Wahlner, Ed Athey, Bill McNelis, Marsha and Terry Cunningham. Dave Weisbart attended by telephone from Columbia, PA.

Old Business

Doug Adams was not present to give a report on his workshop so it was tabled until the next meeting. Charles Register suggested that Doug give out a detailed tool list before he has the workshop and, if possible, where to purchase the tools.

New Business

Bob Linkenhoker gave us copies of the financial statements for discussion. Ray Marsolek gave us breakdown of the monies taken at the door. Ed Athey moved, seconded, and it was passed to approve the Treasurer's Report. It will be posted at the next general meeting.

Terry Cunningham said the program for February would be the first video in the Tascione watch repair series, and it will run approximately 50 minutes. Charles Register was asked to postpone his Beginner's Corner until March because of the length of the video. His presentation will be on "The Century of Watch Making." Suggestions were made for future programs. Ray suggested an Auction, Cora Lee suggested a program on Old Tools, and Bob talked about having one on gravers. David Weisbart will do a Beginner's Corner on Making and Sharpening a Graver. He also wants to do something special for the June meeting since it is our 30th Anniversary.

Ray Marsolek suggested getting more people involved in giving educational classes. He plans to do several; the first one will be on the "Introduction to Clock Repair." He will base it on the why's and how's and will give out a list of tool needs and the cost of the class. Mainsprings will be included in the first class. Ray will decide on a date and have this information by January 20 in time for the newsletter. He hopes to show other member how to conduct educational classes so they might do the same.

Charles Register said that he would make a handout of all the videos in the library to give out to members at the next Chapter meeting.

David asked Mary Ann Wahlner to recruit a few people to help on the Membership when she is unable to be at the meetings. During the Go-Around, she commented on how difficult it is to get the new membership cards out to all the members. She still has cards from last year that were not picked up by members. Mary Ann explained that when a new member renews his/her membership, we don't handwrite the new card. Jim Espy runs it through his computer to print out the new ones and they are then given back to Mary Ann. A discussion was held on this subject and one suggestion was to have an announcement made before the meeting to remind members to pick up their cards. Another suggestion was to put a reminder in the Tic Talk Times.

Bob Linkenhoker asked about a donation request to the American Clock and Watch Museum, and Dave said we had agreed to give them \$100. Bob will send it. He also told us the last quarterly billing for insurance was \$351.

Angelo DiMino stated that he was very impressed with the number of members that are now staying for the chapter meetings. We are on the right track.

Bill McNelis suggested the Tic Talk Times should contain a section on hints/tips for clock and watch repair such as the old "Hogies Hints."

National

Bill McNelis discussed the National convention with the Board.

Nominating Committee

Terry Cunningham said we must find a person or persons to be on the Nominating Committee, but no names were discussed. There are many positions to fill this year.

The February Board meeting will be held at Doug Adams house. With no further business, the meeting was adjourned at 9 p.m.

Respectfully Submitted, Marsha Cunningham, Secretary