NAWCC SW Chapter 15

The MainSpring

A Monthly Publication from Southwestern Chapter 15 of the National Association of Watch and Clock Collectors

Our First Experience at an NAWCC National

~ Bob & Karen Rasmussen

This year's NAWCC National was in York, PA and as we are fairly new members, it was our first time going. Overall it was a rewarding experience that we will definitely do again.

We wanted to get to York early enough to make sure we had plenty of time to explore the area in addition to going to the convention itself. Many clock and watch collectors have a love for antiques in general and we are no exception, so our first afternoon was spent exploring the local area and viewing the great selection of antiques…and needless to say, we walked away with a few treasures.

The highlight of our second day was the NAWCC museum. The exhibits are stunning and it took several hours to go through. One clock in particular was simply amazing – the '8th Wonder of the World', the Engle Clock. It is 11' high, 8' wide, and 3' deep. It has 2 organ movements and 48 moving figures. At each quarter hour it goes through some motion, with the highlight being at the top of the hour, of course. As they don't keep the clock running, each hour a museum employee manually moves the hands and you get to see the clock in action.

We also had a chance to briefly explore the Research Library, which has a friendly staff always eager to help. We all wished we could have spent more time in both the museum and the library. Next time!

Our third day was spent at the convention to take advantage of the classes that were offered in conjunction with the National. Karen took the picture frame gold leafing class with fellow Chapter 15 member Pat Holloway. Bob took the case restoration class with fellow Chapter 15 member Hugh Lindsey.

The gold leafing class was taught by an excellent instructor, Nancy Thorn, who does gold leafing for a living. Each class member was given a frame to gold leaf. In addition to the gold leafing instructions, she taught the class different ways of antiquing and decorating the frame using methods such as sgraffito and pastiglia. Students who weren't able to complete the frames during the class were given the materials to complete the frame on their own. The case restoration class was taught by Doug Moran, who is a master antique furniture restorer with over 30 years experience. In this class, we learned a technique of putting stain on a piece of glass and placing the glass over the wood case you are trying to match the color to. They also covered different finishing techniques and veneering. (Read more next month about Bob and Karen's experiences, including Chapter 15 member sightings.)

Clock Sale

There will be a sale at Babe Jensen's home on Saturday, July 31st at 8:00 a.m. The address is 720 W 13th, Houston, Texas 77008. Many good clocks and tons of 'stuff' will be included. For more info please contact Marcus Bush at 713-455-1988.

Treasurer's Report		
Chapter Account		
Beginning balance	**$7,670.91**	**$7,669.19**
Income:	$ 20.00	
Expenses:	$ 21.72	
Regional Account		**$4,363.60**

"Real or fake?" - the story continued

On June 26th, sixteen members and guests attended a sequel to the May "Real or fake?" program. While the focus had been on precious metals and diamonds in May, various colored stones took center stage in June.

Our guest speaker, Penny Armstrong, described the attributes of the stones, including typical flaws and variations. She also gave tips on how to recognize some of the synthetic stones. Penny once again welcomed questions from the attendees, many of whom were able to learn more about the stones in pieces they had brought. Not only did they hear about the stones, they were able to gain a better understanding by seeing them under the high-powered microscope that Penny provided for the program.

Our thanks to Penny Armstrong for bringing us a second fascinating program. Thanks also to Luther Lucko, Program Director for lining up the great programs we've been enjoying.

Restoration Projects: Miniature Ansonias and Waterburys (Part 2)

A frequently neglected repair is the balance pivot/balance cup. When balance pivots

are worn, they usually wear the cups as well. It is very difficult to examine the cups even under highest magnification because of the inward conical shape. Light reflects off the surface and obscures the wear, which is near the apex of the cup. With 100 years of use, it's almost certain these cups will need to be refitted. And, most certainly the balance staffs will need to be turned on a lathe and resharpened. Neglecting this repair will result in erratic timekeeping or even a clock that will not run for more than a few hours.

Once the movement work is done, attention is turned to the case work. Just as the movement requires special care, so it goes for the case as well. Handling these clocks over 100 years has the effect of wearing the nickel plating away. Skin oils and acids then attack the brass and sometimes leave deep pits. To repair these cases, all of the darkened nickel must be removed and the brass resurfaced. We use an environmentally safe product from MetalX to remove the nickel. To repair the pits, multiple layers of copper are plated over the brass, sanding between layers and ultimately buffing the copper to bring back the luster. Thereafter, nickel is plated over and a coat of metal wax applied. The finished product is shown in the following pictures, fully functional and ready to brave another 100 years of service ☺ :

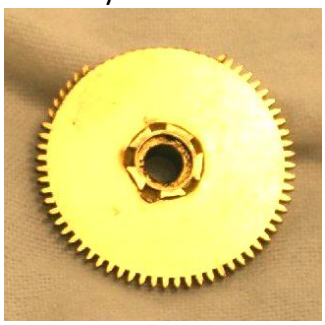
Waterbury "Insects". There are a variety of Waterbury miniature styles. In general, the two broad turn-of-the-century models we've encountered have been the 30 hour Waterbury Hornets and Wasps along with the 8-day Spiders and Fangs. Tran Duy Ly lists these as metal case novelty clocks and shows more ornate models such as the 8-day Bogie and Era which utilize the

same movement as the Spider and Fang. This 8-day movement was used in a number of Waterbury novelty clocks of the era. Both the Spider and Wasp were gold-plated with a glass sleeve, and the movement can be seen through the glass. The Fang is the same clock as the Spider, but without the see-through case. All are fitted with a beautiful beveled lens and enameled dial. Generally, these clocks have been referred to me as Hornets and obviously there is some understandable confusion over identification of the different, but very similar,

models. Adding to the confusion is that the Hornet and Fang are listed as having jeweled movements. I've not personally encountered any jeweled Spider or Fang movements as of this writing. Shown above are two Spiders that were subjects of recent restorations.

As with the Ansonia Bee, getting power from the mainspring to the center wheel is a big challenge in the Waterbury "insect" clocks. It's the source of 75% of the problems encountered. However with the Hornet, things are complicated by the very large mainspring, at least large in relation to the main wheel, transfer pinion, and third wheel. The mainspring barrel and spring take up more interior volume than the rest of the movement. The mainspring itself measures in at ¾" x 0.012" x 92".

Real trouble starts when an 8-day mainspring fractures. The mass of the spring, the inertia in the uncoiling, and the fragility of everything around it add up to disaster. Shown below is an example of the main wheel from the Waterbury pictured above right, victimized by a broken mainspring. The "kick back" created by the uncoiling mainspring crashing into the sides of the barrel damages not only the main wheel, but also bulges the thin barrel at the hook which causes interference with the movement pillars. In extreme circumstances, this force can distort the barrel to the point where the lid no longer fits securely. We've seen third wheel pinion leaves bent by this force as well.



Waterbury main wheel damaged by the sudden uncoiling of a fractured mainspring

New main wheel attached to reconditioned barrel.

After spending hours reconditioning a barrel, it is important to exercise extreme care with the replacement mainspring (fortunately these are available!). We wind and unwind the spring on a winder at least 10x to identify potentially defective springs that might fail soon after being fitted into the clock. Once the spring is fitted in the clock, we take great care to inspect that the tail of the spring is well fastened to the hook (actually a rivet in this case). While a slipping mainspring tail won't destroy the power train, it might just cost us a few hours of disassembly and repair of a fractured spring or damaged hook. However, if it lets loose when the spring is fully wound, it WILL do major damage.

After taking care of fabricating a new main wheel (and possibly transfer pinion and third wheel pinion, if necessary), the next step is inspecting the movement for wear. Usually, these 8-Day Waterburys will have severely worn lower main wheel bearings. Yes, bearings—these clocks utilize a special bearing that combines the pivot hole of the center wheel with the pivot hole for the main wheel, a part that is riveted to the plate, making it difficult to fabricate and replace.

The transfer pinion holes are almost sure to require attention as well. Every 8-day Waterbury double-decker I have seen had transfer pinion holes that were worn to the point where the gearing locks up. It's amazing that some of them still run—barely. The transfer pinion is affixed between the plate and a bridge, so care must be taken in rebushing these holes—but only after any wear is polished out of the transfer pinion pivots.

Last but not least, the Waterbury ratchet and click are examined carefully. If either of these fails in an assembled clock, the results will be the same as in the case of a broken spring—another day or two in the machine shop. We don't hesitate to replace or recondition both of these. It's cheap insurance.

(Ken Reindel's restoration projects article will conclude next month.)

Newsletter Editor NAWCC Chapter 15
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Save The Date

- July 24th
  Clock case restoration and refinishing
  Ken Reindel and Jay Holloway
  1105 Lafayette Lane, Pflugerville

- August 27th – 29th
  All Texas Regional
  Houston, Texas
  Chapter 15 is co-host

- September 25th
  Restoration of a tower clock
  Gene Galbraith

- October 23rd
  Program
  Bob Rasmussen

Clock case restoration and refinishing program

Our next meeting is on Saturday, July 24th at 10:00 a.m. Ken Reindel and Jay Holloway will be giving a program on clock case restoration and refinishing. Although this is not a hands-on workshop, if you have questions about a specific clock case, please feel free to bring it along and questions will be answered as time allows.

Guests are welcome at all programs. Mark your calendars now and invite a friend – not only will you learn something new, you'll be able to enjoy a great time of fellowship with other Chapter members and guests. Several members have been going to lunch after the monthly meetings; if you have time, plan to join in the continued fun and conversation.