



The MAINSPRING

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

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Save the date

August 26 – 28

All Texas Regional
J.W. Marriott, Houston

September 24, 10:00 a.m.

Chapter program
Michael Webb
Windermere Clubhouse, Pflugerville

October 22, 10:00 a.m.

Chapter program
Windermere Clubhouse, Pflugerville

November

Chapter potluck

December

No Chapter meeting
December 1-4
Lathe FSW
College Station

Current Board Members

President – Ken Reindel

President@nawcc-chapter15.org

Vice-President – Bob Rasmussen

VicePresident@nawcc-chapter15.org

Treasurer – Tom Tarpy

Treasurer@nawcc-chapter15.org

Secretary – Pat Holloway

Secretary@nawcc-chapter15.org

Director of Programs – Gary Sertich

Programs@nawcc-chapter15.org

President’s Message

July round robin demos a success

Happy August to everyone! July marked the start of a new era in Chapter 15. We have procured the availability of a new space for doing our programs in Pflugerville. For those of you who could not make it to our program in July, the space looks like it is going to be just right for our needs. It is air conditioned, well lighted, clean, includes a rest room, a small kitchen area, and plenty of meeting room for us.

In July, we made good use of it by presenting a “Round Robin” of hands-on workshops. Jay Holloway kicked off the activities showing us how to resin-cast and finish replicas of small items. Karen Rasmussen then gave us an in-depth look at reverse glass gold leaf techniques. I wrapped things up with a tutorial on pivot polishing and rebushing. Feedback from folks who attended has been very strong so far.

Our ability to set up tools, projects, materials, etc., so we can practice and demonstrate our crafts will go a long way towards accomplishing the kind of training and development we want to have in our Chapter. It can supplement the wonderful programs offered by the NAWCC both in York and in the Field Suitcase Series. For those who cannot travel to attend the other NAWCC programs, we hope to provide high-caliber, local alternative short courses in the future on some topics. Check this and future publications of the Mainspring for announcements of upcoming events. If you couldn’t attend in July, seeing is believing. Come on out to see the new site in September! And, thanks again to Pat and Jay Holloway for securing this new facility.



All Texas Regional – Houston

The All Texas Regional, sponsored by San Jacinto Chapter 139 and co-hosted by Chapters 15, 80 and 124, will be held in Houston on Friday, August 26th through Sunday, August 28th. Since so many Chapter 15 members attend this Regional and the date coincides with our normal monthly meeting, we won't have an additional meeting in August.

Meet new Chapter 15 director

Gary Sertich



Gary is a Senior Attorney at the University of Texas Health Science Center at San Antonio. He is a native of Tucson, Arizona and completed his undergraduate and doctoral education at the University of Arizona. While his science career took him to Pennsylvania, Georgia and North Carolina, he ultimately decided to merge the disciplines of biology and law and become a patent attorney. This new direction brought him to Austin in 1993, reuniting him with the Southwestern climate and culture of his youth.

He has enjoyed a life-long fascination with all things mechanical, starting with a go-cart when he was 8 years old. It was not long before a malfunctioning engine was disassembled, repaired and then reassembled (under the watchful eye of his father) to run once again. Several vehicles later followed, and his stint in Pennsylvania introduced him to a Seth Thomas Globe purchased at an antiques mall, as well as the NAWCC museum in Columbia. It was not until after he had moved to Austin and bought his house from Larry Butcher, former member of Chapter 15, that he accelerated his interest in clocks and joined the NAWCC, with Larry as a sponsor. Through a Self-Winding Clock battery purchase from Ken Reindel, he discovered Chapter 15. He is now looking forward to a lifetime of learning about all types of mechanical timepieces and their history from the rich knowledge and expertise within the club.

Restoring Wood Alarm Clock Cases

~ Ken Reindel

In the early days of alarm clock manufacturing, you could win or lose based on your ability to control the cost of manufacture. We've seen many innovations in this area, including Westclox with their cast alloy pinions which represented a breakthrough in labor savings at the time. Likewise, clock case design was focused on keeping costs down. Factory throughput is an important element of this. The longer goods take to work their way through the factory, the more expensive they are. Metal could be processed—and even plated—fairly straightforwardly, even though many of the techniques were still being perfected.

The processes involved in manufacturing wooden clock cases would seem to be somewhat more expensive. The wood must obviously first be purchased, then cut to shape and size and sometimes veneered. The wood pores would need to be filled. Then, a coloring of some kind would need to be applied, followed by several protective coats to seal the color and provide a smooth finish for the wood to resist skin oil, humidity, etc. Perhaps this is the reason that wood clock cases were not as widely used for alarm clocks except by a few manufacturers. We see widespread use of wood cases on other clocks through history, but not as common with early alarms.

With the advent of electric clocks, one sees a steep rise in the number of wood clock cases. Presumably this was preferred for safety reasons? An errant wire could not cause an electrocution hazard if it came in contact with the wood, whereas metal clock cases might have been perceived as putting the customer at risk. Perhaps it was for this reason that the advent of the electric alarm clock brought the wood alarm clock case into everyday existence.

We periodically see electric (and less frequently keywound) alarms with wood cases that need to be restored or, at the very least, improved. There is a great deal in the literature about refinishing wood, and quite a bit of it (or perhaps close to all of it) is unsuitable for antique clock restoration. For example, contrary to what one internet electric clock restoration firm claims, early clock cases were not "oiled." This process would have taken an extensive number of coats of oil, with long drying periods in between, and ultimately dubious results. Oil is not very durable and needs to be replenished periodically, which would not have been feasible for a production

Treasurer's Report

Chapter Account	\$7,489.83
July Newsletter and stamps	62.92
Website renewal	<u>11.25</u>
	\$7,415.66
Regional Account	\$4,263.60

clock. Another example of misinformation: Buy a can of Polyurethane varnish and slap a coat on a clock case. This is sacrilege to antique conservators. You cannot reverse these finishes, so they should never be used in restoration efforts.

What is a reversible finish? Reversibility is a key word in antique wood refinishing, including clocks. It implies a type of finish that can be dissolved by its own solvents. Polyurethane does not qualify because its solvent, mineral spirits, will not even touch it once it dries. The only thing that will remove polyurethane is marine paint remover, and remover will more than likely damage or soften the aged veneers and solid wood substrates in our antique wood articles. This also applies to the newer water-based polyurethane coatings. Shellac, on the other hand, is reversible. Shellac thinner can be used to dissolve the finish. The same goes for lacquers, which can be dissolved with lacquer thinners, many decades after they have cured.

For this reason, I am going to focus on reversible finishes, namely shellac and lacquer. Shellac finishes were in widespread use in the 1800s through 1920 or so. After 1920, shellac was largely displaced by lacquer finishes because of their durability, resistance to alcohol, fast curing, and ease of application. Both will offer phenomenal results with low cost, easily obtainable materials that I will outline in what follows. I will also suggest some conservative ways to improve the appearance of your wood clock case without complete refinishing, using these materials.

The materials we are going to need are as follows:

Quart size of Shellac Thinner (I prefer Behkol from Behlen for mixing shellac, but any shellac thinner will do for removing shellac finish on clock)

Quart size of Lacquer Thinner (Behlen brand preferred)

Quart size of Acetone (optional)

Alcohol-based Stain These can either be pre-mixed liquid stains such as Behlen Master Solar-Lux Stains, or aniline dyes such as J. E. Moser's aniline dye stains that you can mix with shellac thinner to create your own shade. Either will work. You'll have to select the shade you desire. Dark Walnut, Mahogany, and Brown Mahogany seem to be the most popular colors with old clocks. If you also buy black, you can combine it with one of the lighter stains to darken them as needed. Any combination can be mixed to achieve your own custom color, or they can be used right out of the container as is.

The finish coat will depend on several factors. By default, I prefer to finish with what was originally on the piece. However, either reversible finish (shellac or lacquer) is suitable. Lacquers have somewhat of an edge over shellacs in speed and quality of finish, in my opinion, but opinions differ. You can also buy cans of spray lacquer for small articles. You cannot do that with shellacs since they must be mixed fresh and tend to spoil if not used 6 months after mixing. Pre-mixed cans of shellac will therefore have an expiration date. Lacquer does not suffer from this affliction. A compromising factor is that lacquers are not good to inhale. You must work with a respirator or work outdoors. We will touch on that a bit more later. For now, here are your choices:

Shellac. If the choice is shellac, I recommend orange de-waxed shellac flakes. This item can be easily purchased either on line from Woodcraft outlet stores. Woodcraft has stores in many locations; check your local directory. It can be mixed in small batches, and safely discarded when it "spoils." It's a lot like milk in that regard, except spoiled shellac does not smell. Instead it will not dry and so remains tacky and soft.

I use Hock's Orange Dewaxed Flake Shellac because I find it to be most similar to what was originally used in clockmaking and therefore the most authentic for restorations. Many other types of shellac are available. Feel free to experiment, but this is what I use. In any case, use a dewaxed shellac. It will make the mixing and preparation much more straightforward, and will give you the least problems in application. Hock's is available



from Homestead Finishing Products and other shellac is available from Woodcraft.

Although a bit inconvenient, mixing shellacs is not that difficult. It is actually rather tough to make a mistake. As a rule, we will be applying shellac with a brush, although it can also be padded on with cheesecloth or trace cloth (also available from Woodcraft). For this purpose, a 2 lb cut of shellac is ideal. If it seems too heavy, you can always thin it. To mix a 2 lb cut, mix about ¼ lb (4 ounces by weight) of flake with 1 pint of shellac thinner, preferably Behkol. Think ahead! The mix must be left for about 24 hours to allow the flakes to fully dissolve. Don't use the mixture until the flakes have fully dissolved.

(Cont. on page 4)

Restoring wood alarm clock cases continued

Lacquer. Lacquer can be conveniently purchased from Woodworkers Store. These folks carry all of the Behlen products mentioned above. Woodcraft carries them as well if you prefer, or have an outlet store near you. Behlen Lacquers are available in spray cans, ready to use. For small articles like clocks, this is a very convenient way to go. It is very difficult to brush on lacquers and I don't recommend it for the beginner or occasional refinisher. For large articles, well, that's a bit beyond the scope of this article. You'd need to buy the lacquer in quart cans, mix it up with retardants, flatteners, etc., and spray it with HVLP equipment and an air compressor. None of that should be necessary for small alarm clock cases.

Lacquer comes in three finishes that are important to us: Gloss, Satin, and Flat. I recommend Satin for what we are going to do with clocks, although some might prefer to work with the gloss. Either will work, but the satin will have a more subtle look. Gloss might be a bit too reflective for our antique alarms. Flat is usually too much in the other direction.

One additional advantage of lacquer sprays is the availability—and compatibility—of lacquer spray toners. Toners are lacquer-based spray stains. They are amazing. While most dyes and stains that are

applied directly to the wood can potentially be blotchy or uneven (a lot depends on the wood), toners allow you to spray on and “shade” your finish in small increments until you achieve the color you want.

Once you have done some wood finishing, you will appreciate what incredible effects can be obtained with lacquer spray toners. I keep a variety of colors in the shop at all times for touch ups and small refinishing projects. If the wood is porous or otherwise not suitable for direct application of stain, I apply a clear coat of lacquer finish to the wood first, and then follow up with the spray toner, one thin coat at a time until I achieve the color I want. Then I topcoat with clear satin lacquer. More on that later.

Behlen Master offers lacquer spray toners in a great variety of shades. They can be applied in thin coats to achieve the desired color, and then top coated with clear satin lacquer spray. These are available at woodworker.com or woodcraft.com, or Woodcraft outlet stores. Again, in my experience, Dark Walnut, Mahogany, and Brown Mahogany seem to work the best for refinishing old alarm clock cases, but you can choose the color you prefer from a broad palette.

(To be continued. Next month, we'll talk about preparing the surface of the clock case.)