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**President's Corner**



**PRESIDENT'S MESSAGE**

Cora Lee and I have just returned from the National Convention in Grand Rapids Michigan. This is the tenth National Convention I have attended and strongly recommend if you can possibly fit one into your budget and schedule you do so. Due to the economy this year's event was a little smaller than the last few with only 700 tables and about 1200 attendees.

It has been my habit for the last seven years to arrive on Monday and attend the annual summer Board of Directors meeting on Tuesday and Wednesday. This gives a good view of just how the National is run and the dedication of the members of the Board. Some highlights of this year's more than 16 hours of meeting are:

New Board officers elected: John Hubby Chair, David Collard Co-Chair, Ruth Overton Secretary, and Tom McIntyre Treasurer.

Out going treasurer, Peter Kline reported a deficit for this year mostly due to the economy

This year there will be no Ward Francillon symposium. Next year's will be hosted by Buckeye chapter 23

The board is looking for someone to chair the Symposium Committee

National Convention for 2010 will be in York Pennsylvania chaired by Lee Davis. Phil Gregory, past Council chair, has been investigating possible sites for future years and recommends that Kansas City be looked into for 2011, Pasadena for 2012, and Minneapolis/St. Paul for 2013. None of these sites are confirmed and much work has yet to be done.

A member of the Chapter Relations committee has been researching the effects of changes the IRS has been making in reporting for 501C status EINs. There was a discussion as to what effect this would have on our chapters and decided that all chapters would be notified of the changes.

**Sell it Through the Newsletter**

Every member may submit one ad per newsletter. This includes a *Wanted to Buy* or *Wanted to Sell*. The newsletter comes out at the beginning of March, June, September and December.

**Author Instructions**



All are encouraged to submit articles for publication in the *Alarm Clock Chapter* newsletter. Please include your name, address and phone number with the article.

Although certainly not a complete list, suggestions for topics are:

- Specific alarm clocks or manufacturers
- Unique design - movement or case
- Special methods of cleaning
- Descriptions of interesting repairs
- History of a manufacturer
- Helpful tips on repair

Photos along with the text are always appreciated. Please email to the editor at:

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or send article on computer disk (MS Word) via snail mail

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### A Few Images from the National 2009



Bob and Cora Lee with a display of  
Gayle Loos' Clocks



Cindy and Gayle Loos at the 2009  
National



Bob with Gayle Loos' Clocks



Welch Novelty clock collection

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Bill Bryant was elected to the NEC (National Election Committee) as the Board rep for the next four years.

The executive director ask and obtained permission to hire a second watch instructor for the School of Horology due to the size of the next class just about to start.

It was reported that the recent Chapter Charter mail out response had less than 50% response. The Chapter Relations committee will investigate.

The last step in getting the Museum admitted into the American Association of Museums was to get an employee's ethic statement approved, which was done. We should have approval soon (by the way did you know that on the back of your membership card is a pass that will get you into most Science and Technology museums in the country free)

As I stated this is just a highlight of the meeting.

Even though the mart was smaller than it has been in the past few years it was large enough to present a good variety of clocks, watches and tools. Of course besides the mart there was so much else to do that it was still a busy week:

There were 12 lectures, 11 National committee meeting, 2 auctions, the Awards banquet, the Chapter Representative's breakfast, the Annual Meeting, and 9 special interest Chapter meetings, all which were open to the general membership. Our Chapter had a meeting scheduled but for some reason it didn't get into the printed schedule of events although we had a room reserved. As a consequent we only had four members show up. Although this was a disappointment Cora Lee and I did get to meet and have a great visit with members Gayle and Cindy Loos. Gayle also brought a number of his alarm clocks to share. It was a pity more weren't there to enjoy them. Please see the pictures in this newsletter.

I hope to see many of you at the Greater Los Angeles Regional in February and at next year's Convention in York Pennsylvania, which will be a great time to also visit the museum in Columbia.

Till next time keep on collecting and enjoying those unique alarm clocks.

Bob Linkenhoker

**Two Packages**

— Mike Wilson and Doug Stevenson

The pleasure we have in our Chapter comes not just from the alarm clocks. It also comes from the fellowship and the friends we've made. Two packages sent from New Jersey, left on our doorstep in Arizona, are good examples of both. And they benefited the Chapter as well.



Figure 1: What to our wondering eyes should appear....

The Chapter member who sent them, William J. Meehan, was born in New York City. Like so many of us who became fascinated by clocks, he started out by repairing alarm clocks he found in the trash when still a boy. Soon the apartment house manager was saving clocks for him. And the other residents, friends, and relatives would give him clocks to work on and learn

from. He became skilled enough to work for two different watchmakers in Newberg, New York. After training and working as an electronics technician, he continued to repair watches and clocks on the side. Yet his personal interest in watches and clocks has remained central over the years, and he keeps some running for visitors even today. The two packages? The Arizona



Figure 2: But two boxes of alarms..



Figure 3: Like the one shown here.

Sunshine Regional was coming up, he had a couple of dozen alarm clocks that he could donate. Might we be interested in having them to sell there – to the benefit of the Chapter? We certainly would. The alarms did sell and sold well. Indeed, some Chapter members who attended the Sunshine Regional didn't know they were actually helping the cause until after their purchase. One Chapter member was delighted to find a small alarm he'd looked for when he was in Germany. Arizona member Dennis Sagvold, author of (2004) *Legged Alarm Clocks*,

also found some to add to his own collection. So we thank you Bill! It's been our pleasure in more ways than one.



Figure 4: They sold well at the Sunshine Regional in Arizona.

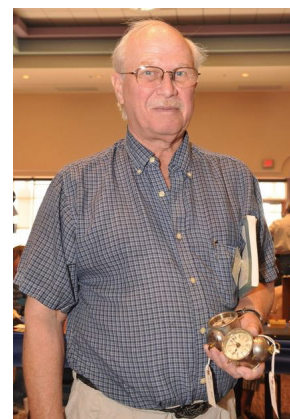


Figure 5: And brought pleasure to Dennis, too.

On Another Note...



HBACC member Ron Hoops shows some of alarm clock collection to Marge Smith at a recent Chapter 71 meeting.

**For Sale**

National Clock Company  
8-day time and alarm clock  
Ca. 1920?

\$95.00 + shipping

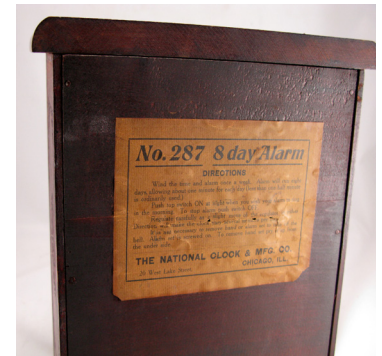
Contact:

Vince Angell

916-952-4961

Or email at:

phylathome@hotmail.com



**HBACC Donation at the NAWCC Museum**



Images are of the HBACC Westclox Alarm donation to the NAWCC Museum. Thank you to Gayle Loos for the images.



**Peep-O-Day Trivia**

by John Koepke (Images from Ron Woops)

The term Peep-O-Day seems to have been first used in relation to gangs who preyed on their victims in the early morning. I recall reading that New York shipping interest would send folks out in the early morning to watch for ships arriving in the port so that they could be notified as soon as possible. These folks were known as PeepODays.



**The Parabola Alarm**

by Kevin Knauss

I noticed this clock on Ebay and how it looked suspiciously like a clock I had read about in the NAWCC Bulletin. I dug out the October 2008 Bulletin and found the article on page 584 that confirmed the clock was a Parabola alarm clock. The Bulletin article has a reprint of the original patent as well as line drawings. However, the clock pictured in the article had been converted to a conventional alarm clock with the aluminum parabola clock face removed. As I understand, the parabola clock was invented by C.B Stevens in 1907 to absorb sun light during the day and be luminescent at night so you could read the time. I assume the inventor chose a parabolic reflector shape for the clock face to collect or concentrate more of the available daylight to recharge the luminescent paint. As you can see from photos 1 and 2, the luminescent paint was originally a light tan color or had discolored to such a state with age. In the previous article on the Parabola clock, there was a sticker that cautioned against touching the clock dial. I was not sure if that was to prevent smudges or avoid toxic chemicals. I decided to remove the luminescent paint, which would still glow in the dark, and repaint the aluminum parabola clock face, rather than have potentially radioactive material in the house. When I could not find any glow in the dark paint that would stick to the aluminum, I settled for white enamel. For the clock numbers, I matched the original font as best I could in MS Word, then printed them out and used glue stick to adhere them to the clock face. The clock movement itself was in good condition. I gave the movement a good cleaning and re-bushed a few of the pivots. Someone had given the case a good bath with walnut stain and I had a heck of a time getting the stain off the back plate. I straightened out the front trim and bezel and got a 5" piece of clear Lexan to cover the dial. While it is not a complete restoration, the clock is almost identical to the line drawings the C.B. Stephens used for his patent application in 1907.

The only dates or markings are on the back cover of the clock. There are two dates stamped on the back 'Patented March 19, 1889, January 29, 1901'. These are the same dates stamped on a Darche mfg. co alarm clock manufactured in Chicago Ill. Perhaps Darche made the clock for the inventor, C.B. Stevens, and just used their existing movement and back cover.



Figure 1: Before Clean-Up



Figure 2: Before Clean-Up



Figure 3: After Clean-Up



Figure 4: After Clean-Up

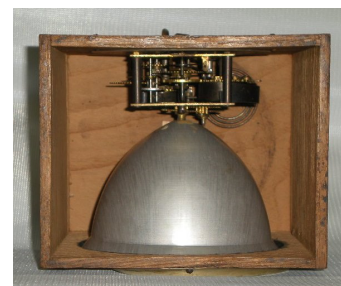


Figure 5: Bottom interior of clock movement and aluminum parabolic dial.

## Restoring Wood Alarm Clock Cases

by Ken Reindel

### Part 1: Preparing the Case

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 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.



Left: Solar-Lux stains

Right: JD Moser aniline dyes

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 dewaxed shellac flakes. This item can be easily purchased either on line or 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.



Left: Hock's Orange Dewaxed Flake Shellac. Many other types of shellac are available. Feel free to experiment, but this is what I use. I find it to be most similar to what was originally used in clockmaking and therefore the most authentic for restorations. 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. Available from Woodcraft stores or [www.woodcraft.com](http://www.woodcraft.com)

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.

**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 items, 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 dyes and stains 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 lacquer spray toners are available 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 can be purchased at either [woodworker.com](http://woodworker.com) or

[woodcraft.com](http://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.

**Preparing the Surface.** The subject of our restoration will be the case shown below. It is from a Telechron desk clock circa 1935 or so. The movement is driven by a classic Telechron movement powered by a small sealed rotor. The rotor is H style. As received, the cord was unsafe to use. The movement and rotor were gummed up and did not run. The case was likewise highly distressed. The subject of electric alarm clock movement repair would be a great future article. These clocks are gaining in popularity but bargains can still be found.





The picture below is a close up of the finish. It can be seen



that the finish has heavily alligatored. It is distressed, scratched, etc., but the real issue is the finish is failing. It will not easily dissolve because it has become dry and brittle. Polishing is futile once the finish alligators and fails. It cannot be partially removed because this process will continue to reveal more cracked and alligatored effect underneath, all the way down to the bare wood. I will choose to remove it completely, but without using a harsh paint remover which would damage the veneer and wood.

The first thing we want to do is to identify the original finish. Most early clock cases were either shellac (prior to 1920) or generally lacquer (later than 1920). However we must approach this with care since shellac finishes were also used beyond 1920. To test, we will try some shellac thinner in an inconspicuous, small area for example on the back or underneath the clock. Apply the thinner to a small cloth, and wet a very small area less than 1/2 inch square. We're looking to see if the finish softens in this spot. After applying the thinner, you can try touching it again with a dry cloth or your finger. If it is sticky, then shellac was the original finish. Sometimes you must rub the finish to see if the finish is picked up by the cloth. If the shellac thinner will not soften or remove the finish, then try lacquer thinner.

If the lacquer thinner does not soften or remove the finish, you are faced with a decision. Most likely the original finish has

been replaced or top coated with a varnish or polyurethane of some kind. If the article is in generally good condition, it might be wise to leave it alone, or use a more conservative touch up method such as tinted wax, rubbing out the finish, etc. Removing the polyurethane with marine paint remover is an option, but you risk bubbling the delicate wood or veneer. You'll have to make that call.

In the case of our subject clock, shellac did indeed cause the finish to become sticky, but it did not soften it. The true telltale in this case was a look at the cloth that was used to rub the finish. The solvent-soaked cloth picked up substantial finish when the shellac thinner was used. When the lacquer thinner was tried, very little finish was picked up on the cloth.



Conclusion: The finish was shellac. See below.

At the top, we see that the cloth soaked with shellac thinner did a much more thorough job of picking up the finish. Clearly this is, or was, a shellac finish.

**Caution:** When using any solvent or solvent based finish, it is wise to wear a NIOSH approved breather, or to work outdoors. Even if you wear a breather indoors, it is important to provide adequate ventilation to avoid dangerous buildup of flammable vapors. And of course, do not smoke or when using these products and keep them away from any ignition source! When handling these materials, or cloths soaked with them, always wear rubber gloves. Don't wear latex gloves since the solvents will destroy the latex. Always keep safety foremost in your mind.

Shown below is a NIOSH approved breather. There are other styles available. The one you want will have carbon-style filters that absorb the harmful organic lacquer vapors before they reach your lungs. These can be purchased on line or from Home Depot, Sears or similar outlets for about \$30-40. This is inexpensive and reasonable insurance against developing

COPD later in life, perhaps worse pulmonary ailments or even brain damage. We use ours even when we are working with



ammoniated clock cleaning solution.

Below is a view of the clock case, 45 minutes later, after the finish was totally removed. A few key points about this process. First, using this method, as much or as little of the finish as you like can be removed. If your desire is to remove a badly damaged outer surface, assuming the finish has not alligatored, then you can do that. However, if the finish is alligatored as ours was, you can make much faster work of removing all of the shellac by switching to acetone after



softening with shellac thinner. This material will much more aggressively remove finish, leaving a clean wood surface. You will also notice that we snagged some loose veneer with our cloth. Not to worry; we will take care of this straight away. This must be repaired before the veneer tries to curl up. The good news is we were careful to save the original pieces of veneer!

**Repairing the Veneer**

In our previous section, we were left with our wood clock case stripped of its original shellac finish. We were able to remove it by first using shellac thinner to soften and dissolve the finish. Turning the cloth multiple times as we went, and rubbing

patiently, the finish came off onto the cloth. The cloth unfortunately snagged a bit of loose veneer along the way, and we were left with the problem of replacing this veneer. As you recall, we saved the original pieces of veneer which will assure an exact color match and fit.



To repair this veneer, we must start by scraping out all of the loose glue seen as white haze in the picture to the left. This is an easy job if done with a razor blade or sharp utility knife blade. Light scrapes

across the surface will disintegrate the glue very easily. Be careful not to gouge any of the surface, and especially be careful around the edges. Use the same method to clean the glue from the back of the piece of veneer, but be extra careful here!

To glue this piece back in place, we will be using a product called Ground Hide Glue. You will want to use Ground Hide Glue, and no other product. Do not be tempted to use Elmer's glue, contact cement, or any other glue. Hide Glue has the properties needed to make perfect veneer repairs on our antique clock case. It will tend to provide an initial tack, allowing adjustability and clamping, and will dry tenaciously hard. If you make a mistake, the piece can be disassembled by applying water and heat. It is



reversible, which other glues are not. Even the pre-mixed hide glue is NOT to be used for this repair.

Hide glue is what was used to assemble and veneer your clock originally. It is a little fussier to prepare than liquid glue but it is worth it. You'll need to mix it up. For small repairs like veneer, an ideal mix is equal volume parts of glue and water. This is far from scientific but it works well, again for small veneer repairs. Mix a small amount in a jar, perhaps ¼ inch

depth at the bottom of a 1 inch diameter pill jar and no more! Add equal parts water. You can mix it up but it will not really dissolve until it is heated.

Now, immerse this jar into a larger one such as a pickle jar. This is the “bath” water which acts to hold the heat in the smaller jar, keeping the hide glue warm (140F is ideal). Fill the pickle jar with water to a depth of about 1 inch. Now microwave this whole thing for about 20 seconds until the glue mixes to a liquid and completely dissolves in the water. Again, the proper temperature of the water “bath” is 140F and if you have a small food thermometer that would be helpful.

There are special thermostat equipped glue pots made for mixing hide glue and keeping it warm for longer periods of time. If you have a large project, or a good deal of veneer to repair, this is great. But if you are doing a small 1 inch veneer



repair, it is more trouble than it is worth and the microwave method is fine. Just watch carefully and do not boil the glue out or it will be ruined.

Once the glue is ready, heat the area of the case with a heat gun or hair dryer until it is warm to the touch. Don't leave the heat



gun on too long in one place because you don't want to scorch the wood. But you want it warm in preparation for applying the glue. Apply the glue with a stick or toothpick to the clock

case first, then to the veneer piece. You only need a thin coat of glue, not a heavy blob. Position the veneer in place and



close the seam as best you can. Clean off any excess from the seam. Once the glue begins to get tacky (it will take only a minute or two for this to happen), confirm the position of the patch and clamp as shown. Never apply the clamp directly to the piece; always use a block of wood in between the clamp and the veneer. As a hedge against having the glue stick to the block, a small cut piece of wax paper can be sandwiched between the veneer and the clamp block. Let dry for 4 hours.

Once you have removed the clamps, you must do some minor touch up sanding around the edges of the veneer and over the surface to remove any excess glue that may have oozed out onto the surface. This also tends to blend the veneer patch to the surrounding area. Once you do this, you will have a finished result that looks as shown above. The repair is virtually invisible.