

The Howard Banta Alarm Clock Chapter



Chapter 178 of the National Association of Watch and Clock Collectors

www.acc178.org

2007 Volume 3

Best Wishes
for a
Happy and
Fright Free
Halloween

In this Issue

Have you ever seen a one foot wide Big Ben? Fellow member Dick Vigal shares with us his unique Big Ben Display clock.

Gene Baker describes a few of his favorite Gustav Becker alarms.

We're beginning a new series called 'What is it?' This gives you a chance to benefit from your fellow members expertise for those horological oddities on your shelf.

This issue we review the Spokane Regional. See yourself in any of the images?

Lastly, we are
v e r y
p l e a s e d
t o c o n -
t i n u e w i t h t h e

article by Ken
Reindel entitled

***The Baby Ben Movement
Restoration Highlights.***



Officers and Contacts

Alarm Clock
 Chapter Newsletter: Quarterly
 Annual Dues: \$15.00

PRESIDENT: Vince Angell
 PUBLICITY: phylathome@hotmail.com
 ASSOCIATE EDITOR:

TREASURER: Mike Wilson
 SECRETARY: mike@oldephotog.com

ASSOCIATE EDITOR: Phyllis Angell
 phylathome@hotmail.com

EDITOR: Mary Maier
 saraandmary@sbcglobal.net

President's Corner

We all have a love of alarm clocks just because they are what they are. Small, simple, attractive, inexpensive and just interesting. Some of us collect by the numbers and have fabulous collections of dozens or even hundreds of those fantastic metal and wood examples that are of interest us.



I don't know about the rest of you but there is also the collector of special interest alarm clocks. These collectors may collect only American as myself, some collect German, some animated, some by manufacturer, some by advertising dials, some by style, some by name and some collect those that have original containers. There is also the collector that has so many alarm clocks that they now have started collecting the paper products that are associated with alarm clocks, ads, instructions and display pieces.

With this said, we are looking to profile some of these collections for future newsletters to show other collectors the scope of interest that is out there for alarm clock collecting.

If you would like to share your special interests with the rest of us in a future newsletter we would love to help you with your article. All we need is some pictures and a short write-up.

We will also help you with your write up if you choose. Just contact Mary Maier or me by email or snail mail for help. If you would like to talk to me, please call me at 916-952-4961.

It's only with your help that this newsletter continues to be the best in the NAWCC.

Thank you,
 Vince Angell

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:

saraandmary@sbcglobal.net

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

Mary Maier
 530 Staples Avenue
 San Francisco, CA 94112

**Product Section:
 A Good Rust Remover**

This Product is really made for cleaning up and maintaining tool table tops. But it does a neat job cleaning up any tool with rust. For more information see their website

<http://www.empiremfg.com>



Before



After

Spokane Regional

We hope you enjoy the images we're showing here from the Spokane Regional.

Vince and Phyllis Angell.



Member Bill Trisksa grins from ear to ear on his find.

Fellow member Charles Bennett proudly shows his HBACC pin on his hat – Great idea!!!



Richard Vigal showing his Spasmodic Alarm Clock. This was the same type of clock he first took apart when getting into clocks many years ago.



Member Alyce Sanders shows her great find. An Ansonia "Little Dorrit"



Our chapter president Vince Angell



Betty Chisum shows an animated Pluto alarm clock she was selling.

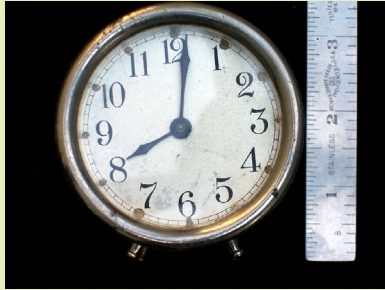


Signage with Phyllis Angell



Phyllis and Charles having a great time!

What Is It?



Hello Fellow Members.

I'm hoping one of you may help to identify the alarm clock I've shown here. Its a key wind, apparently of rather high quality. The back (upper right) opens to give access to the alarm set.

Any information, or even outright guesses are greatly appreciated.
 Regards,
 Lee Smith
 almfs@qix.net



A Few Alarms in My Collection

by fellow member Gene Baker

A few of my alarms are shown below. In the long image with five alarms, three are pendulum driven. From left to right:

- (1) A Lenzkirch with pendulum. This has a signed dial and movement.
- (2) An unsigned wood cased movement with pendulum. This appears to be basically identical to the Gustav Becker with pendulum
- (3) A subminiature alarm with balance wheel. The case is signed DRP. The movement is unsigned and has a tandem wind -the first I've ever seen in an alarm.
- (4) Gustav Becker with balance wheel and signed dial and alarm.
- (5) Gustav Becker with pendulum and signed dial and alarm.

The 3 alarms with pendulums have no alarm or time setting knobs and are set by moving the hands which are not glass covered.



Corner

Poet's

MY BEST ALARM CLOCK
 By
 Roger Royal

There's nothing much better
 Than a new alarm clock.
 I run to the mail
 And tear open the box.

I fight with the tape
 That covers the flap.
 And pop all the pips
 On the clear bubble wrap.

My pulse is racing
 As it comes into view.
 I feel so excited
 I don't know what to do.

It's the one that I've wanted
 For over ten years.
 I've waited so long
 That I'm almost in tears.

I open the tissue
 And there it is.
 The clock of my dreams
 And it fills me with bliss.

An Unusual Advertising Piece

Several years ago a friend of mine who owned an antique shop contacted me concerning a Westclox Big Ben advertising piece that he had acquired and asked if I would be interested in buying it from him. I was on my way a few minutes later and very pleased when I saw the piece. It is made of 3/4 inch plywood and shaped exactly like the Big Ben Model of about 1931 which has printed on the bottom of the cast

A-2
 PATENTED U.S.A.
 March 29, 1927
 PATENTS PDG
 RD 1931

Needless to say I bought it immediately and it did require some degree of restoration though I am very reluctant to do too much. The panels which rotated beneath the dial and advertised the clock had some wear and in places missing pieces of paper which I did touch up but other than that it was intact.



The pictures display the four different advertisements that appear as the clock operates. The drive motor is an early Seth Thomas which requires the moving of a lever to start the motor. It had not run for ages and I did do some necessary maintenance on it and it ran quite satisfactorily after that. The back of the display has a label from Schloss Manufacturing Company, 523-525 Mission Street, San Francisco and typed on the label is Display #65 Property of Schloss Mfg. Co., San Francisco. I have not been able to find any information on that company but would like to hear from anyone who knows of it.



This is the only Westclox advertising piece I have but I like it very much and am pleased to be able to share it with fellow members of our chapter,

Horologically ,

Dick Vigal



Korner

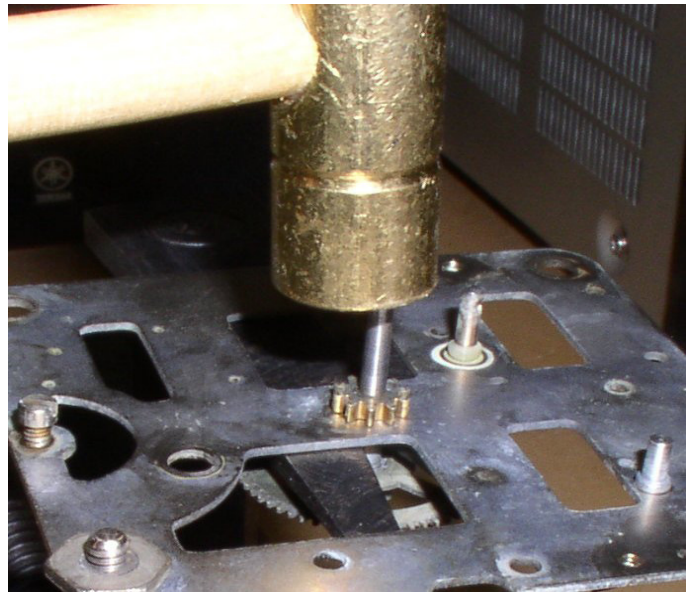
Ken's

The Baby Ben Movement Restoration Highlights

by Ken Reindel*

*This article is continued
from Volume 2, 2007*

In the upper left corner of the image below we see our center wheel pivot hole. It is worn, but not nearly as badly as the third wheel hole, lower center. It is long and oval and will require an oversize bushing to repair. It's amazing these clocks keep running for decades with this kind of wear, but eventually the party comes to an end and the clock stops. In

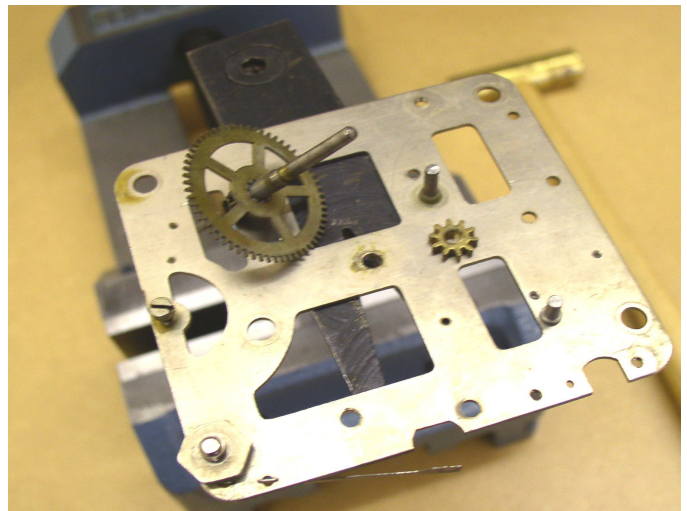


Setup for Removing Cannon Pinion



this case the repeating alarm must have also begun having problems since on the Style A Baby Ben this wheel controls this feature. With all this wear, it's even more amazing how unusual it is to find a vintage Westclox with a worn pivot—although it does happen and must be dealt with.

As you can see on the left above, the center wheel cannon pinion has been removed. Often repairers skip this step and leave the pinion in place because it is considered difficult to remove. In fact, it is not difficult to remove with the right tools. Below is a picture of our setup. A few brisk taps with a light brass hammer and the assembly slips apart easily. Getting under the cannon pinion is very important. Cleaning and servicing this hole cannot be done any other way. In this case, we also had to deal with the badly marred center wheel arbor which had been staked flat, distorted, bent and scratched in some previous repair operation.



Pinion Removed (Style 3 Chime Alarm)

The alarm setter knob must also be removed. On many clocks, this is a simple screw-on part. The alarm tension washer and retaining nut are then removed, and the shaft drops out the front of the movement. On some movements, the alarm setter is a friction fit and must be removed in a fashion similar to what was done for the cannon pinion. It's impossible to describe every possible scenario, since they vary from clock to clock. For example on some later model alarms, there is a pilot hole in the center of the setter that can be used with a thin drift punch to tap the shaft downwards while clamping the setter either with the crow's foot or with the vise (wrap the setter in 1/16" cardboard to prevent marring it). On some movements such as the early Ingraham and Gilbert movements, the alarm set shaft is pinned. The taper pin must be driven out to allow access to the move-

(*) Ken Reindel is the owner of Ken's Clock Clinic found at <http://www.kensclockclinic.com>

ment. With it in place, the movement cannot be disassembled for any kind of repair work. For these we use a small brass collar which is placed on the shaft under the screw-on setter. We've hollowed out part of the underside of the collar so that when the setter is screwed on, it acts to pull the shaft upwards, lifting the pin off the plate, allowing easy removal with a thin drift punch.

The small Palmgren vice shown in the background is a "must-have" on the clockmaker's bench. It is one of the most handy, helpful tools on the bench. It is heavy enough to be used for staking operations, but light enough to be moved where most convenient, even as a milling or drilling vise! It's one of the most frequently used tools in our shop.

Now that the movement is fully disassembled, it is time to do a more detailed inspection of what we're dealing with. There are a myriad of things to check, so I've listed the most common things:

- All movement train pivots (look for bent pivots as well as wear)
- Escape pallet pins
- Escape pallet fork (for wear)
- Escape wheel teeth (for wear)
- Balance Pivots (for wear or cracks)
- Balance pin
- Balance roller (for wear)
- Broken teeth
- Center wheel clutch (very important!)
- Ratchets and Clicks
- Mainsprings
- Mainspring barrels
- Cast Arbor and Pinion (for loose pivots and cracks)

Let's now cover some of these in more detail.

Movement Train Pivots. Wherever there is a worn hole, it is extremely important to closely inspect for worn pivots. They wear together. It is infrequent to find a hole worn and a pivot not worn, or the other way around. This is because small particles of metal are worn off the pivot and the wall of the hole as a normal by-product of friction. These microscopic particles blend with the oil and eventually form a paste. Some of this paste embeds itself into the walls of the pivot holes, turning the hole into a little sanding block that wears away at the pivot. Some of the paste embeds itself in the pivot, resulting similarly in a worn hole. If a pivot is worn, it is always advisable to rebush the hole. Part of the reason is that once the pivot is resurfaced the hole will be too small. The other reason is to remove the embedded particles from the pivot hole to prevent pivot wear from recurring. Note that no amount of cleaning or pegging out of holes will remove embedded particles. Lightly broaching will do it, but then this will often require a larger pivot! It is debatable if round broach-

ing is aggressive enough to do the job.

I mentioned earlier that the Baby Ben and Big Bens with cast arbors and pinions tend to experience worn pivots at a lower rate than traditional turned pivots. We have found this to be true. Westclox devised the cast approach to save cost, and this resulted in a more affordable clock. But it also resulted in a longer wearing clock. We believe this is because of the way the pivots were made. The process of cutting pivots on lower priced clocks seemed to go a little "light" on the final polishing step, presumably to save time and therefore cost. The result was a somewhat rougher pivot finish. The traditional approach also required softer pivot steel in order to make it possible to economically machine the pivots on the arbors. With the Westclox design, the process by which the pinion wire was formed, as well as the hardness of the wire itself (it only had to be cut, not machined) resulted in a much smoother, harder pivot than was found in traditional alarm clock designs. Because of the relative hardness and yet flexibility of the wire, it was possible to produce a very thin pivot that resulted in much less frictional wear than is found in traditional clocks of the era. This had the additional positive side effect of requiring substantially less mainspring power to run the clock, which in turn also resulted in less pivot wear!

An important point here is that, regardless of obvious wear, ALL pivots should be reconditioned and then ALL holes inspected carefully. Not all pivot holes will need to be rebushed. But you won't be able to make a final determination until all of the pivots are polished and reassembled for re-inspection of the holes. The reconditioning of pivots will be covered in our next series.

Escape Pallet. The escape pallet is a source of many movement problems. The two most common problems are worn pallet pins and a worn fork. The part of the fork that we are most concerned with is that which impinges on the balance roller. We see wear periodically with pallets that are of the non-roller style. However, for whatever reason it seems more common with the roller-style, and must be addressed. There are things we can do short of replacing the pallets that can help this. Pins can easily be replaced. The pallet arm can be staked to stretch the metal slightly, resulting in an oversized pallet that can then be carefully filed to size, essentially "filling in" for the wear.

Pallet problems are responsible for a lot of mysterious behavior with alarm movements. Unless you correctly diagnose these problems and eliminate them, you might be stuck with a movement that runs great on the test stand but eventually stops when installed in the clock—but only intermittently. A beat amplifier is helpful, because problems can be detected audibly but at a very low level so they must be amplified. With amplification, there should be an absence of

rubbing sounds in between the beats. Rubbing is an indication that the escapement is not locked and is recoiling the pallet against the stop roller. This slows down the action of the balance wheel affecting timekeeping and potentially stopping the clock. More on escapement adjustments will be covered in future articles.

Balance Wheel and Balance Cups. The balance wheel pivots are the most common source of frustration for the alarm clock restorer. If worn (and they are the majority of the time) and left unattended, the clock will run sluggish and stop before fully unwound. Severe friction between the balance wheel pivots and cups can stop a clock. The balance wheel pivots can be resharpened and burnished on the lathe. Cups with minor wear can be re-used. Cups with deep wear from years of running with bad pivots will need to be replaced. See pictures below.



An example of a worn balance pivot, highly magnified. Note the flat spot on the upper tip of the conical pivot.

Wheel Teeth. Broken wheel teeth, while rare, can be repaired. If replacement wheels are available from either new old stock or from otherwise unsalvageable clocks, these can be used to expedite the repair. However this must be done with great care, as wheels can look the same and have different tooth or pinion counts. Fabricating replacement wheels is often possible as well. This will be the subject of a separate article in the future.

Center Wheel Clutch. The proper tension on a center wheel clutch is critical. Too tight and the user will have difficulty setting the correct time. Too loose and the movement will deliver erratic timekeeping. Some days the clock will run fast, some days the clock will run slow. You'll have to develop a "feel" for what an acceptable level of tightness is. But in NO case should this clutch ever be left loose.

To tighten the clutch, the wheel can be set in a bench block (available from numerous suppliers with a variety of hole sizes). Often we like to use old bushings as "buffers" for the arbor. A bushing that is a "just fit" on the arbor prevents the hardened steel bench block from marring or otherwise damaging the arbor during the tightening process. It also makes up for the possibility that the exact sized hole may not be available in the bench block. If a bushing is not available, a small scrap piece of 1/16" brass can be drilled and broached open to provide the "buffer" piece for the tightening operation.

This great article will be completed in our next and final issue of the year.

