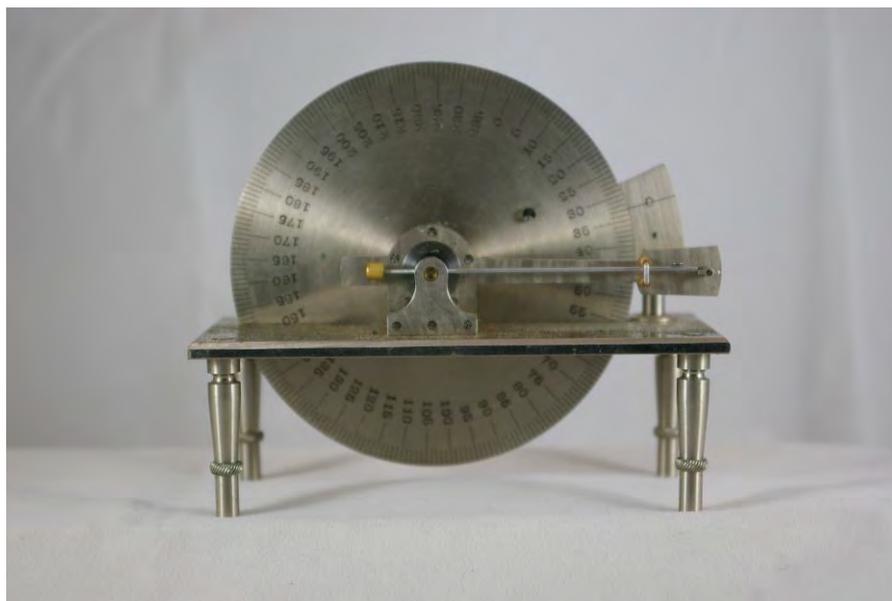


Newsletter of the Horological Tool Chapter #173 of the NAWCC

# Tool Enthusiasts' Round-Up

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Screws

Upcoming Chapter Activities and Classified Ads



A Scale for Measuring Balance Wheel Screws

Winter 2017

No. 34

**The Horological Tool Chapter of NAWCC**

The Tool Enthusiasts' Round-Up is the newsletter of the Horological Tool Chapter #173 of the National Association of Watch and Clock Collectors Inc., a non-profit educational organization. This chapter and its newsletter are intended to foster interaction among NAWCC members who share a common interest in the use and collection of horological tools of all sorts. If you have an item you have researched, a book of interest, or notes on a project you have made, please consider sharing your knowledge with others through the newsletter.

The annual chapter dues of \$10 will ensure that members receive the newsletter and are included in the Membership Directory when it is published. Members are also entitled to one classified ad in each issue.

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**What is Up This Year?**

Remember to register for the NAWCC National Convention in July. It will be held in York, Pennsylvania. Chapter 173 will have a small display, as will some of the other specialty chapters of NAWCC.

We hoped to have a Chapter 173 meeting but, the editor may not be able to attend because of another commitment. If you have a tool program to present please think about volunteering to give it at the Chapter meeting. I hate to cancel this meeting since it will be the first time in many years we have had one on the east coast.

Bruce Forman



John Shallcross at his lathe

### Scales For Measuring Balance Wheel Screws

There were many specialized tools in a watch factory. Some of these tools were purchased from outside contractors but many tools were made in house. One example of an in house made tool is the scale to measure the weight of balance wheel screws. Balance wheel screws were necessary for every watch because balance wheels and hairsprings could not be manufactured to a tolerance high enough to guarantee repeatable results when the watch was assembled. Therefore, small machine screws were added to the rim of the balance wheel to change the moment of inertia as well as to put the wheel into poise.



Figure 1. A watch factory assembly area with scales to measure the weight of balance wheel screws.

Balance wheel screws came in many different shapes and sizes. Hence watch factories developed systems to grade these screws by weight so they knew which screw was needed for a particular balance wheel, Figure 1. These screws could be further adjusted once attached to the rim by screwing them in or out of a threaded hole.

The first balance wheel screw scale acquired by the author is believed to have been made by the Hamilton Watch Company. This attribution was given to the tool by its seller and appears to be confirmed by an early photograph that shows similar tools in a “Pennsylvania watch factory.” Since the Hamilton Watch Company was located in Lancaster, Pennsylvania, it is a good bet that this photograph was taken there, Figure 1. These scales appear to have been used in the final assembly area as the balance wheel and hairspring were fitted to the finished movement. Later, a second tool of this type was purchased in need of some restoration, Figure 2. Although having a different base, the movement and adjustment arms are of the same pattern. This suggests that both units came from the same source.



Figure 2. Two balance wheel screw scales from the Hamilton Watch Company.

The NAWCC library has many factory drawings from Hamilton. A drawing was found of a balance screw scale that was made in 1902. In comparing it to the two known examples, it further confirms that Hamilton made these units but the exact shape of the base varied based on the time period or the machinist making them, Figure 3.

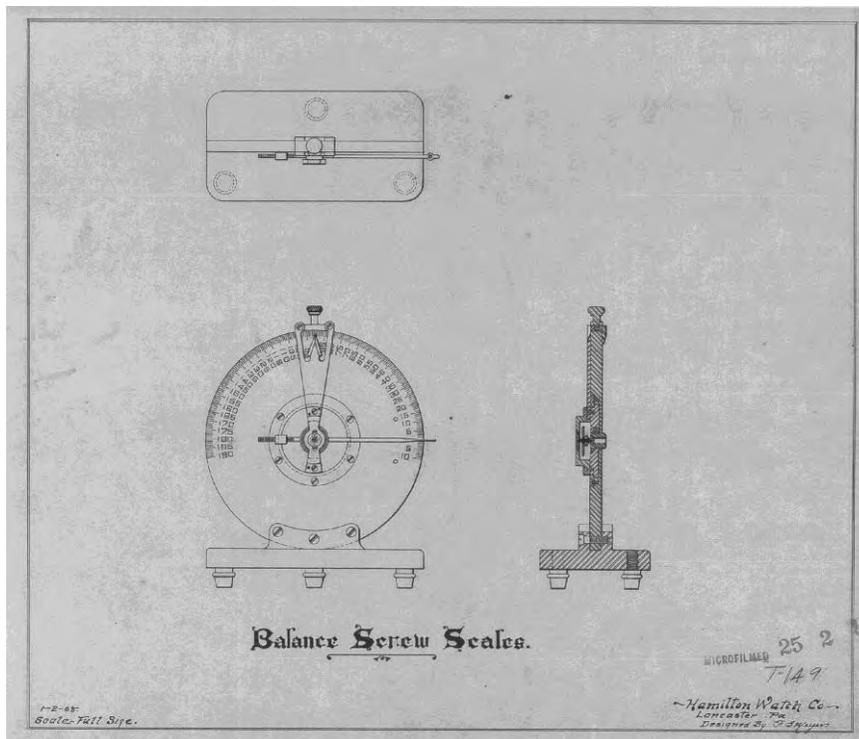


Figure 3. A blue print from the Hamilton Watch Company Archive (NAWCC Library)



Figure 4. A balance screw scale made by the Elgin Watch Company?

Other balance wheel screw scales are known to exist. Figure 4, shows an example that is certainly factory made. I have been told that it may have come from the Elgin Watch Company but, like all of the scales I have collected, it is unmarked. Can any member of Chapter 173 confirm this attribution? Still, a third gauge in my collection with an unknown history is shown in Figure 5. It is now missing its balance arm and staff. It is more primitive than the other units shown but would still have been able to perform its function.



Figure 5. A balance screw scale by an unknown maker.



Figure 6. A balance wheel screw scale with box.

None of the aforementioned scales came with a storage box. A storage box was probably unnecessary since these units were used continuously on a production line or were stored in a tool crib. However, I have seen several units that came in a small black box, Figure 6. These scales are very sophisticated and a lot of attention was given to the design and details throughout. I wonder if these were produced and sold by a firm that specialized in making scales? Hence, they would have been packaged in their own box. Still further, these units seem to lack the heavy wear noted on the other scales in my collection. Someone suggested that the boxed scale may have come from the Waltham Watch Company. Can anyone confirm this?



Figure 7. An unmarked balance wheel screw scale.

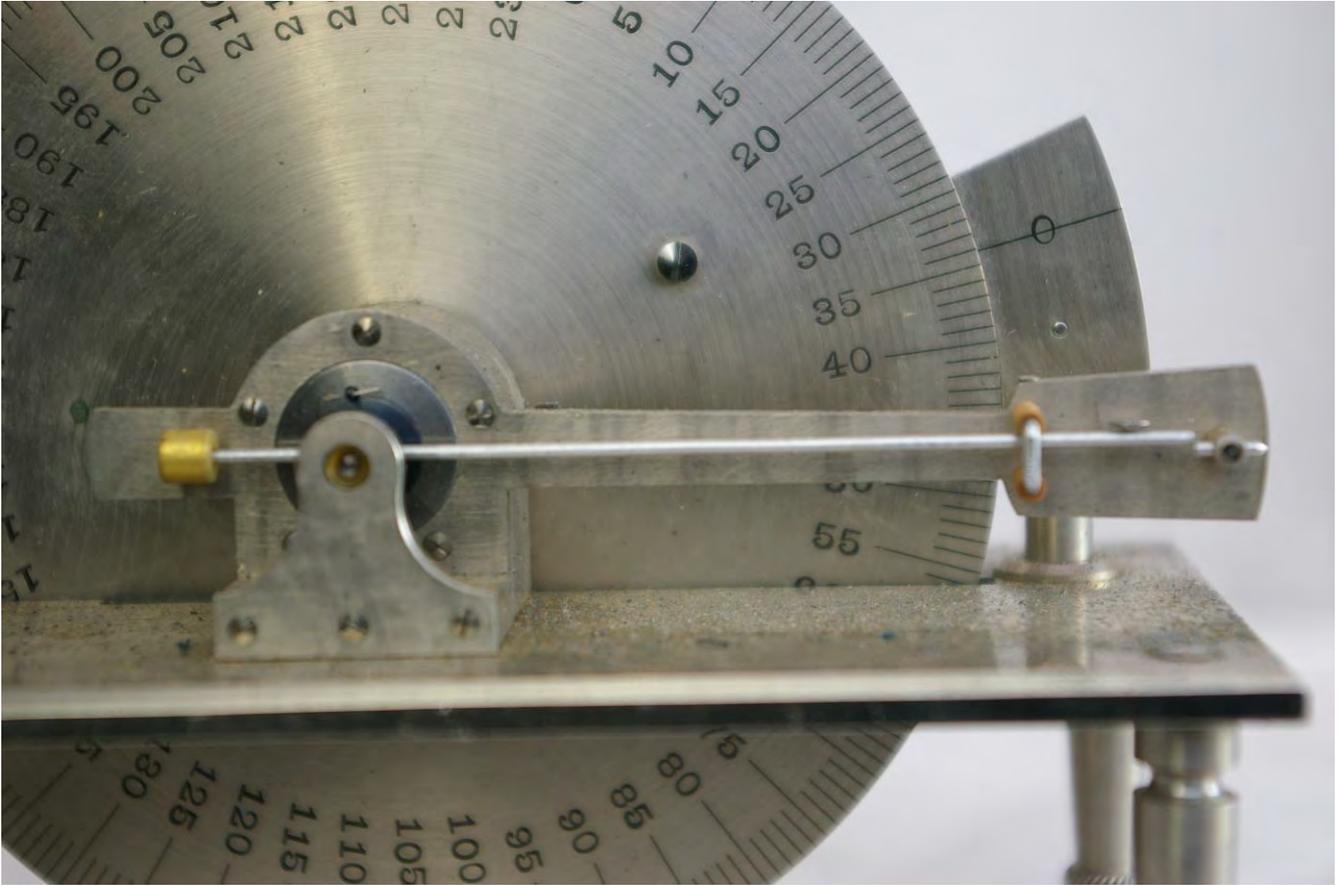


Figure 8. Details of the scale assembly.

If members have other examples or have further information on who made the different scales pictured here, please send information to the TER Editor for future publication.

Bruce Forman  
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### **Question for Chapter 173 Members**

One of our members would like to know the history of the “Favorite” brand name. It can be found on horological tools made in the last century. Are they still in business? Are they a Swiss or German brand? Contact the editor if you have any information.

**Classified Advertising**

**Wanted**

Levin and Derbyshire headstock and tailstocks (lever feed) in 10 mm sizes, any condition, running or not. Also 10 mm Levin collets and other related equipment. M. L. Shetler, Watchmaker, 4151 Paul Road, Woodhull, N. Y. 14898

Deckel, Aciera, Rivett, Schaublin, Lorch, Hardinge, Levin, lathe or mill accessories wanted. Will trade, or sell if I have duplicates. Mark Fulmer  
(330) 877-2021, [Markusfu@hotmail.com](mailto:Markusfu@hotmail.com)

Derbyshire Elect model lathe attachments- pivot polisher, screw cutting attachment, roller file rest, and screw feed tailstock - will trade - for sale: tools from the Elgin watch factory, lathes, grinders, millers, etc...some made by American Watch Tool. J. Dill, 2117 22<sup>nd</sup> St. Road, Greeley, Co. 80631, Tel: 970-353-8561, [jimdle@yahoo.com](mailto:jimdle@yahoo.com).

Wanted cutters for an Ingold Fraise I acquired on eBay. Unfortunately the seller did not have any cutters for the tool. Also would like original or copies of any W. D. Clement Lathe and tool catalogs. John S Koepke, 2923 16<sup>th</sup> Street, San Pablo, CA 94806, 510-236-2197, [jskoepke@comcast.net](mailto:jskoepke@comcast.net).

Buying antique clock and watchmaking tools prior to 1850. If you have something of interest to sell let me know. Bruce Forman, 234 Eagle Ridge Drive, Valparaiso, IN 46385, (219) 763-4748, email: [bruce.forman@frontier.com](mailto:bruce.forman@frontier.com).

**For Sale**

**SOLD-** Oliver jewelers cast iron draw bench. \$600 or best offer. Mark Fulmer (330) 877-2021, [Markusfu@hotmail.com](mailto:Markusfu@hotmail.com)

Federal dial indicator 0 to 0.005 in 0.0001 inch divisions. With Hamilton stand and wooden box. One extra base plate. Price \$250. It is heavy to ship, will sell or trade for antique tools I want but do not need. Bruce Forman, 234 Eagle Ridge Drive, Valparaiso, IN 46385, (219) 763-4748, email: [bruce.forman@frontier.com](mailto:bruce.forman@frontier.com).

**SOLD-** Hardinge Cataract Bench Lathe, 5C collet head stock, with two speed motor and misc. tooling. A good restoration project for someone. Tailstock needs attention. Normal ware for a machine of this age. \$650, Bruce Forman, 234 Eagle Ridge Drive, Valparaiso, IN 46385, (219) 763-4748, email: [bruce.forman@frontier.com](mailto:bruce.forman@frontier.com).



Vintage Craftsmen 6a? lathe, model 109-212270. Includes head and tail stock, slide, tool post, 4 jaw chuck, change gears, faceplate & dog, original operating instructions/parts list, motor and belt. Local pick up only. \$350. Deena Mack, [dmack18@rochester.rr.com](mailto:dmack18@rochester.rr.com). Attica, N.Y. 14011, 585-591-1343 leave a message.



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**Retirement - The Second Time Around**

Our President, Ron Beckler, has announced his retirement as Chapter 173 President. Ron has had a long history with NAWCC and tool collecting. He was a key player in helping to restore the membership of Chapter 173 to its current strength through strong arming his many friends on the West Coast to join. He has also been a strong supporter of the new NAWCC West Coast Museum. Effective next year, Ron will be officially retired and he hopes to be able to spend more time playing with his Hardinge lathe. We wish Ron the best as he moves into retirement as our past president.

Our Vice President, John Koepke, has generously accepted the mantel of President of our chapter. He has written several first class articles for TER. His article on jewelery tools is pretty much the definitive work on this topic (see TER no 16, Summer 2013). His featured article titled "Pliers; What are they used for?" (see TER no. 21, Fall 2014) identified those many funny looking pliers for which we could find no purpose. John is a well qualified tool historian and we welcome him to his new position as President.

This still leaves a vacancy on the board that needs to be filled. So, we are looking for someone to be Vice President. In addition, we are still short of people to help edit the newsletter to catch all the editor's spelling and grammar mistakes (or at least the worst ones).



John Kopeke and Ron Beckler at an NAWCC event.