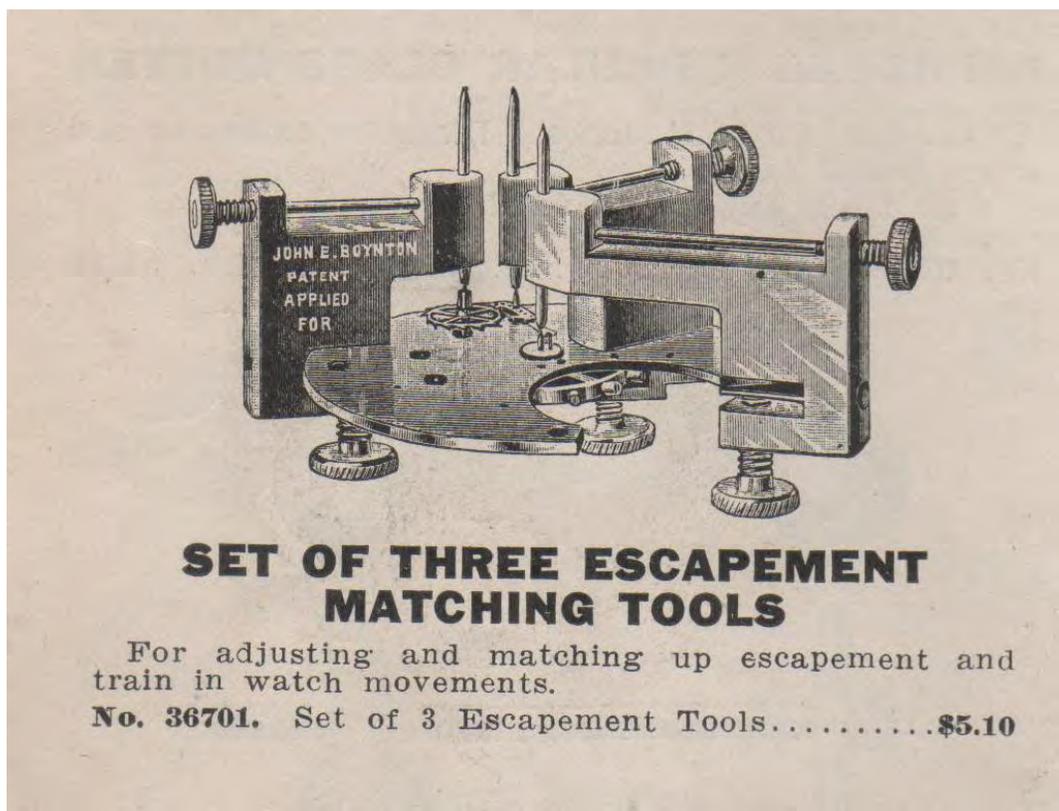


Newsletter of the Horological Tool Chapter #173 of the NAWCC

Tool Enthusiasts' Round-Up

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Dueber Hampton Watch Case Factory Tools



Boynton's Escapement Matching Tool

Winter 2012

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 member 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. If you are interested in joining this chapter, which will meet at various large regionals and also at the National Convention each year, please send your annual dues to the Chapter Secretary/Treasurer.

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Annual Meeting

The annual meeting of NAWCC Chapter 173 will take place at the NAWCC Mid-Eastern Regional. The regional will to be held August 2-3, in Valparaiso, Indiana. At this regional there will be a formal Mart and a tail gate sale. The theme of this year's exhibit will be clocks made before the industrial revolution and the tools that made them.

For the tool collector there will be many hand powered tools on exhibit and an explanation of their use. Chapter 173 will have their annual meeting on Saturday morning August 3. The talk will be on how early clocks were made. Members are also welcome to share tools with the group or ask questions about the chapter.

This year, the Editor upgraded his internet connection and can now send and receive emails at a much higher rate. The Editorial Team now receives draft copies by email. Some of our new members have asked if their newsletter could be sent by email.

If you would like to receive your newsletter by email, please email the Editor at forman21@netzero.net. If we have a response greater than 5 members, the chapter will consider adding this option. It will be a little more paperwork to keep track of everyone, but the dollars we save could be used to fund other Chapter 173 activities. Let us know what you think.

Bruce Forman



A brass mandrel lathe made by H. Leyland.

Escapement Depthing Tools

John Wyke of Liverpool, England, was one of the first persons known to have offered the escapement depthing tool for sale. He ran a large tool business and produced a catalogue that illustrated hundreds of horological tools, circa 1758-1770. Everything imaginable was available from a simple screw driver to a complex wheel cutting engine. The availability of so many specialized tools is not unexpected since England was producing large quantities of watches even at this early date.

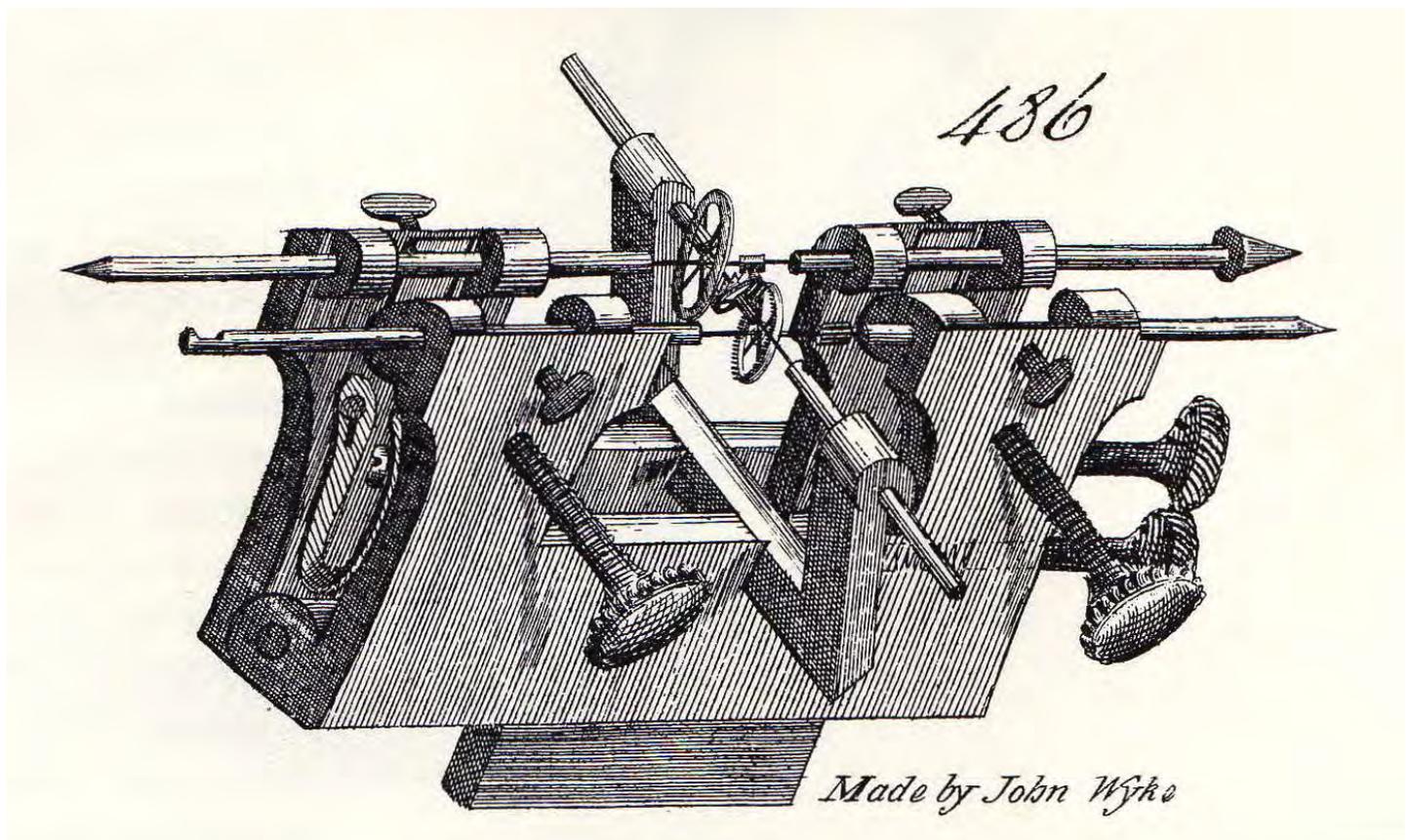


Figure 1. Escapement depthing tool illustrated by John Wyke, circa 1758-1770.

The John Wyke catalogue illustrates an escapement depthing tool very similar in design to a common depthing tool (see Tool Enthusiasts' Round-Up, Summer 2009) but with one additional axis, Figure 1. This tool could be used for examining verge escapements and contrate wheels. How popular this tool was is unknown but tool authority Ted Crom had never seen a single example in his many years of collecting. This suggests that few if any were ever made. This may have been due to its' high price or by the fact that the tool may not have worked very well.

By the 19th Century the Swiss were producing an escapement tool of a superior design mounted on three legs. Several of these tools are known to exist in private collections and museums. It must have worked very well because even the English chronometer making firm of Thomas Mercer used one to check their escapements.

Dating this tool is rather difficult because examples are not marked and they do not appear in any of the major horological tool catalogues. The only known advertisement for this tool can be found in the very obscure Swiss tool catalogue of Faure Freres, circa 1860. It is described in this catalogue as a planting or depthing compass having three legs. The complexity of this tool would have made it too costly for the average watch maker to buy; so, it is believed to have been used primarily by watch factories, Figures 2 & 3.

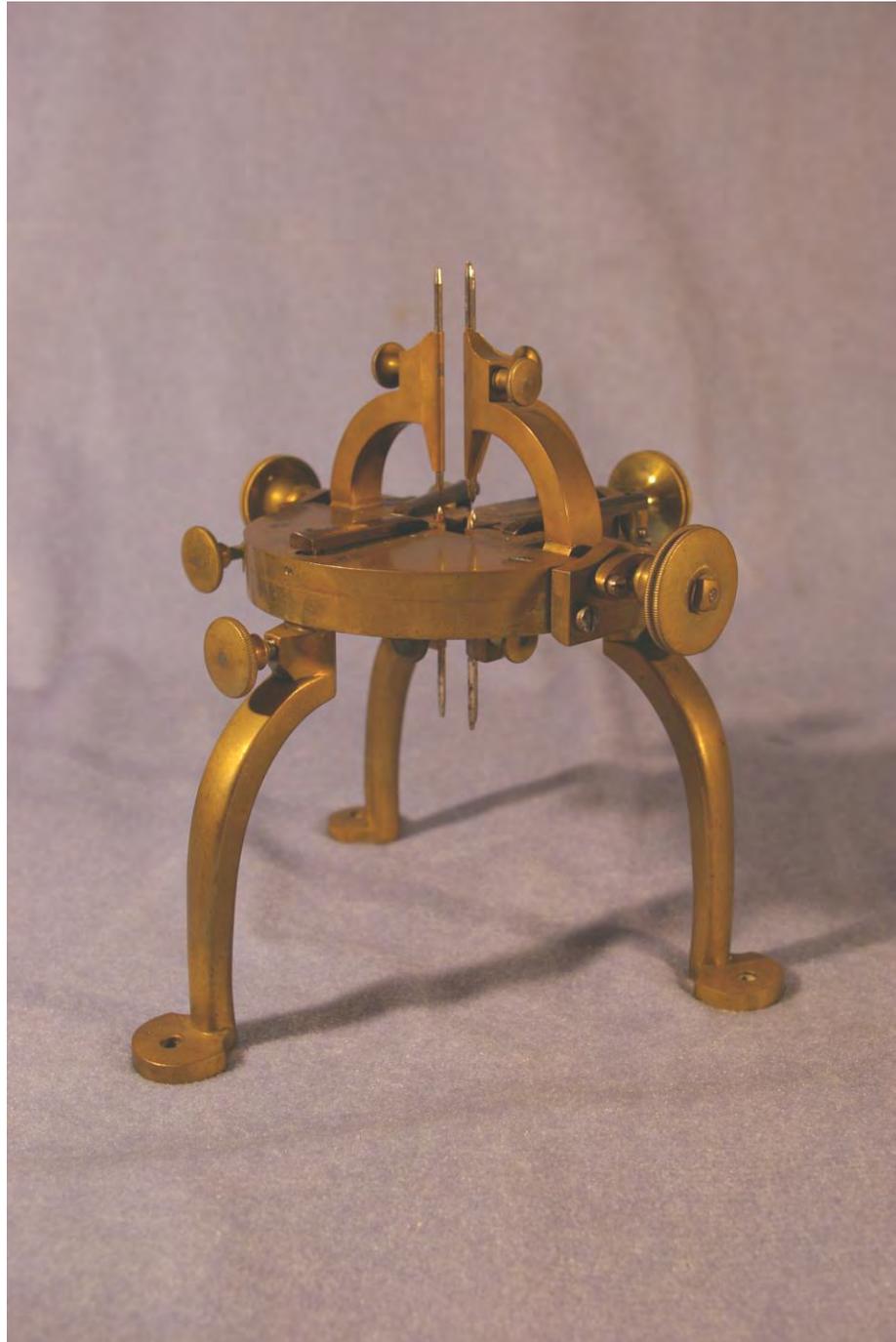


Figure 2. Swiss planting or depthing tool on three legs, circa 1860.

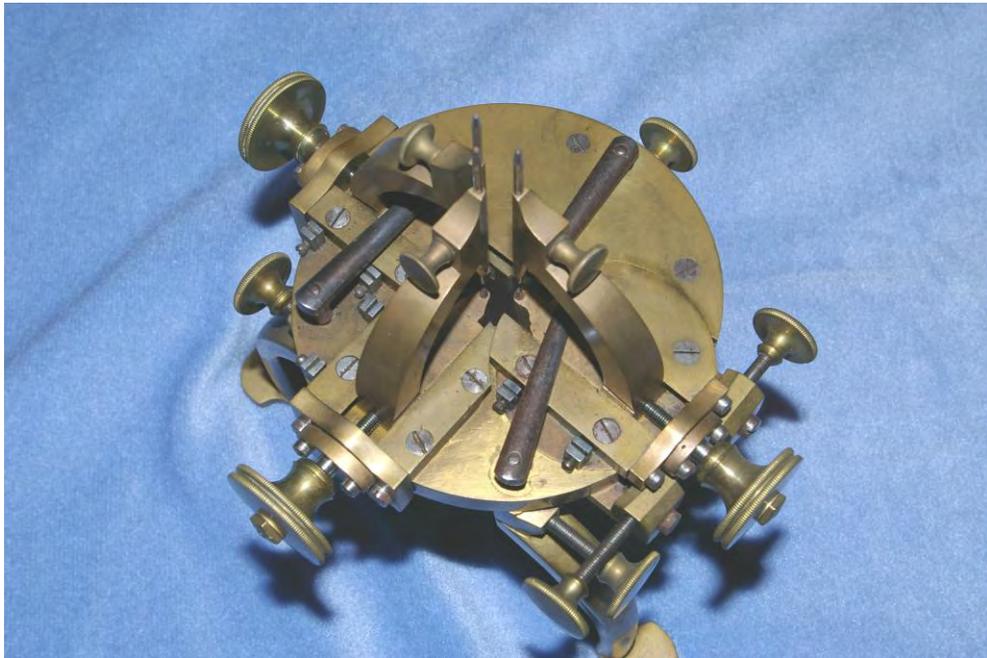


Figure 3. Detail showing the complexity of the Swiss planting or depthing tool on three legs, circa 1860.



Figure 4. Hardinge Brothers escapement matching and depthing tool, circa 1900.

For the common watch repairman a simple and less expensive version was produced, Figure 4. It did not have the capability to actually depth the escapement parts outside the watch but used the watch as part of the system. This design is based on a typical watch movement holder. Once the watched is clamped into the holder the upper watch plate is removed from the escapement. The pivot ends are now supported by a system of three posts and arms. In this way the watch maker could see the escapement in action and diagnose problems.

They appear in tool catalogs as early as 1895. Several different styles were made by different manufactures. The Hardinge Brothers of Chicago is one firm that produced this tool and referred to it as an "escapement matching and depthing tool, with three legs." It cost \$3.25 for the three leg design or \$2.50 if only two legs were wanted. These prices are from the L. H. Keeler catalogue of 1900.

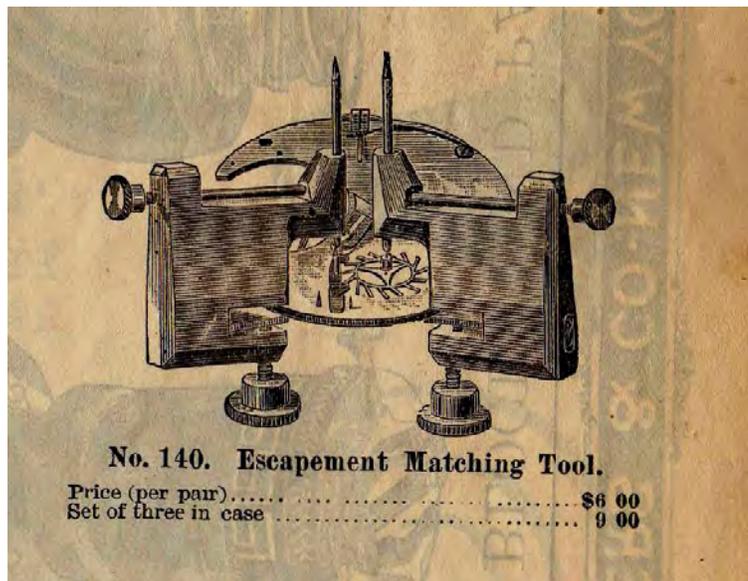


Figure 5. A two legged escapement matching tool.
(S. F. Meyers & Co. Catalogue 1896)

An alternative design was a type that bolted directly onto the watch plate with small clamps, Figure 5. Although these tools were limited to repair work they must have proven useful and were sold in good quantities. As late as 1923 the escapement matching tool shown in Figure 5, was still available in the C & E Marshall Company watch supply catalogue.

Their catalogue cut clearly shows that the tool is marked "John E. Boynton, Patent Applied For", Figure 6. Considering this tool appears in catalogues dating back nearly 20 years, it would appear that the patent office was taking a long time in reviewing the Boynton patent. It could also be that the catalogue cut in the 1923 Marshall catalogue, was an old illustration.

Of the actual Boynton escapement matching tools examined by the author, none have been found with the patent applied for marking. Instead, they are unmarked or stamped "John E. Boynton" on one side and "PATENT PENDING" on the other side. A well preserved set of three tools in their original box gives us some additional information about the Boynton firm, Figure 7. When this tool was made the firm was located in Manchester, Iowa. On the back of the box is a sticker with the name "ECHARCO." ECHARCO may have been a distributor for Boynton or could have bought the rights to make this tool?

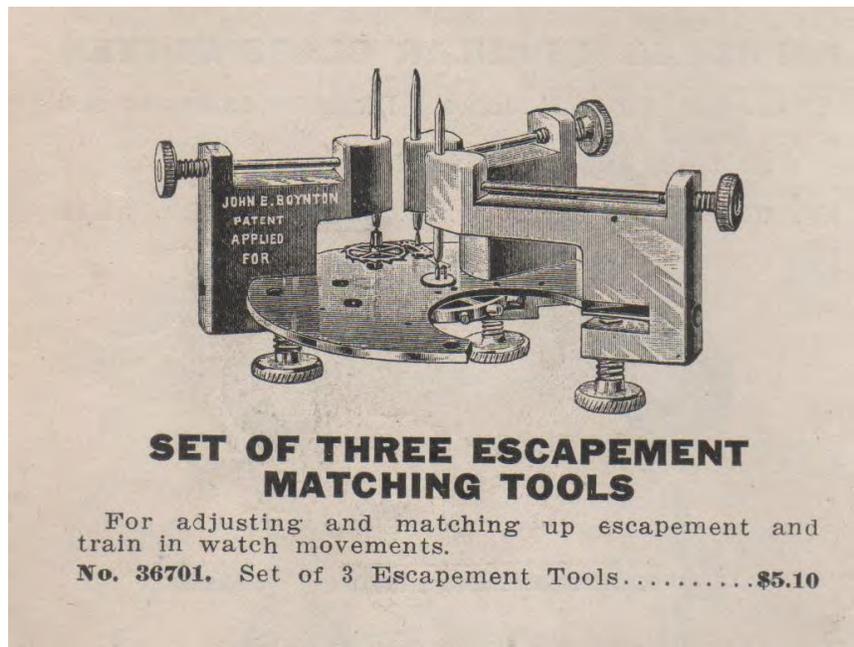


Figure 6, The Boynton's escapement matching tool as shown in the 1923 C. & E. Marshall Co. catalogue.



Figure 7. A Boynton Tool and the original box.

Aside from the special use escapement tools shown, there were also attachments sold to adapt the common depthing tool for escapement work. These were available for both the watch and clock maker. The 1923 C. & E. Marshall Company catalogue shows a calibrated gauge that can be used to set the jewels in a watch pallet, Figure 8. It was relatively inexpensive and said to be usable by any technician with a little common sense!

A large depthing tool for clock work is shown along with a runner that allows the tool to check a grandfather's clock escapement in Figure 8. These tools are extremely helpful when repairing an escapement that cannot be viewed within the clock plates.

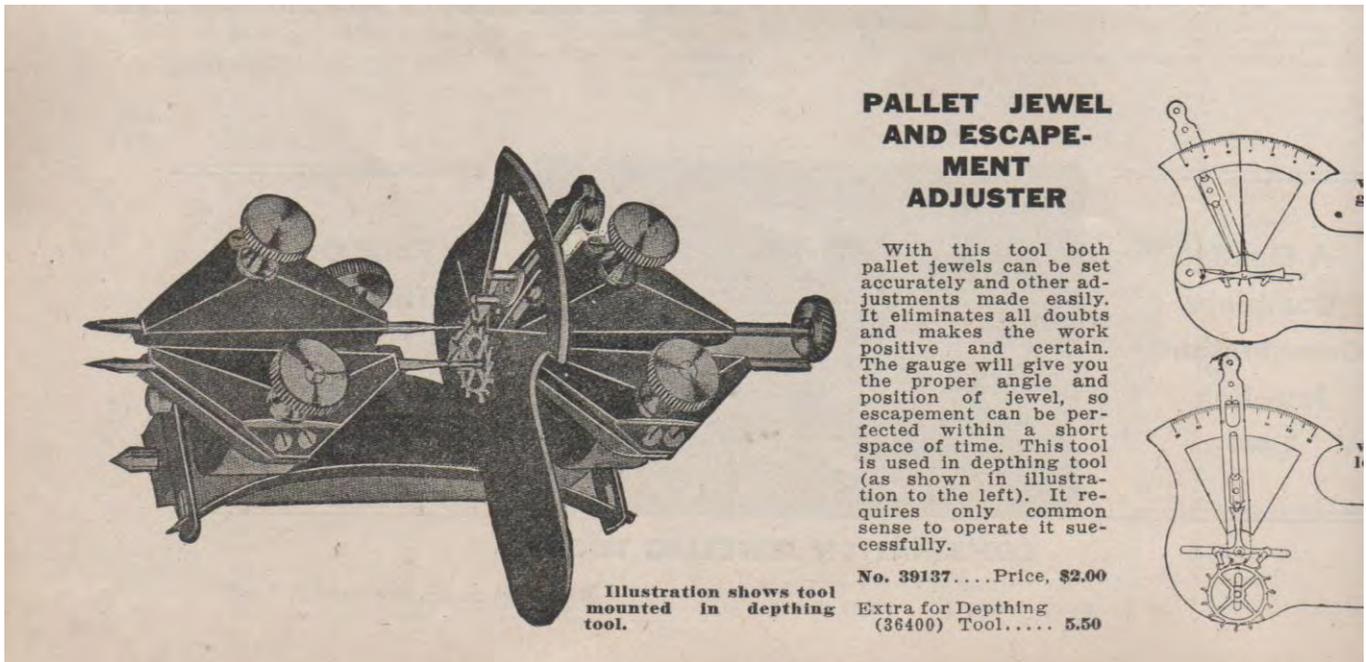


Figure 8. A pallet jewel and escapement adjuster for a watch size depthing tool.
 (C. & E. Marshall Co. Catalogue 1923)



Figure 9. A clock depthing tool with a runner to depth escapements.
 (private collection)

It appears that many different tools to depth clock and watch escapements have been made. If you have seen other examples please forward a picture of same to the editor for inclusion in a future issue of TER.

Dueber Hampden Watch Case Factory Tools

Tool collector Mark Fulmer recently attended a local household auction. Among his many finds were several tools from the Dueber Hampden Watch Case Factory. Mark was kind enough to send the editor some pictures of these tools along with a description. The following are the pictures and text received from Mark.



I attended a household auction last summer in the Canton ,Ohio area where the Dueber Hampden watch and watch case factory was located. I purchased a little mill that was supposed to be from the factory. Attached are a few shots of the mill.

You might notice that the head moves left to right instead of the table moving from left to right. It looks like it was used for some particular slotting operation.



In the basement I purchased a box full of odds and ends marked (Dueber Hampden) including a bunch of lathe form cutting tools. I've attached pictures of one form tool in particular with the name 12 S Knapp Special marked on the one edge.

close up of the 12 s Knapp form tool





I took the liberty of chucking three different sized pieces of brass in my lathe and plunging the same form tool into each piece to see what possibly the original watch part might have looked like.

The outside diameters of the three pieces of brass were, 1.87", .212", AND .559".

If you use your imagination one might visualize a pocket watch pendant, a watch case, or even part of a stem.

I'd be interested in hearing other ideas about this subject.

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, 7676 Route 62, South Dayton, N. Y. 14138

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

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 22nd St. Road, Greeley, Co. 80631, Tel: 970-353-8561, jimdle@yahoo.com.

For Sale

NOW AVAILABLE ONCE AGAIN "THE WATCHMAKERS STAKING TOOL" BY PERKINS & LUCCINA, \$35.00 Postpaid, send remittance to, Ronald G. Bechler, 726 Royal Glen Drive, San Jose, CA 95133-1446, (408) 926-3212

Antique Engraving Machine, with three boxes of fonts. \$500 or Best Offer
Jim Bove, 3654 Dryden RD, Fremont, Ca 94555, 510-792-7352

SOLD-10 mm Collets made by Derbyshire and Levin, surface rust pitting but otherwise in good usable condition. Fractional sizes: 1/8, 3/16, 1/4, 5/16, 5/32, 15/64, 19/64, 9/64 (new Levin), \$135 for all, postage paid. Bruce Forman, 234 Eagle Ridge Drive, Valparaiso, IN 46385, (219) 763-4748, email: forman21@netzero.net

American Watch Tool lathe, length of bed 28", swing is 7", Includes compound slide and one 3WO Hardinge collet. \$450. Deena Mack, 644 Geise Rd. Attica, NY 14011, 585-591-1343, email dmack18@rochester.rr.com.

Elgin Horizontal Milling Machine, Made by the Elgin Tool Works, Chicago, Ill. Elgin was a division of Hardinge Manufacturing Company. Comes with a dividing head, indexing plates, milling vice, 5 arbors, and misc. tooling. Would be a great tool for gear cutting. 220 volt-3phase, Local pick-up only, \$1,000 or best offer, Bruce Forman, 234 Eagle Ridge Drive, Valparaiso, IN 46385, (219) 763-4748, email: forman21@netzero.net

Waltham Thread Mill, \$1,200 and Waltham Spur Gear Cutter, \$1,500. Mark Fulmer (330) 877-2021, Markusfu@hotmail.com