Newsletter of the Horological Tool Chapter #173 of the NAWCC

Tool Enthusiasts' Round-Up

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Upcoming Chapter Activities and Classified Ads

The Anderson Jewelling Tool

Summer 2013
No. 16

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.

Board of Directors

New Things

We have several new things to announce concerning NAWCC Chapter 173. As many of you already know our long time President and founder, Harvey Schmidt, has retired. Actually, Harvey retired from the board several years ago but his name has appeared as President to honor his many years of service to Chapter 173. This year the board created a new position for Harvey as the first member to become President Emeritus.

Ron Bechler is now the President of Chapter 173 a position he has held unofficially, until today. John Koepke is now our Vice-President. You may remember John from his excellent article on screw head polishing tools that appeared in the Summer 2011 issue of TER. His latest article on jewelling tools appears in this issue. We hope to see more of his excellent writing skills, in future issues of TER.

The editor apologizes to the members for the tardiness of the last three issues of TER. The delays were outside the control of the editor and I hope we will be issuing TER on schedule, starting with the Fall or Winter issue.

Remember, dues are now due. Please see the attached flyer to find out if you need to pay now or next year. We have added the option of receiving TER using email. If you are interesting in receiving your copy of TER in this format, please check the correct box on the membership form. We will try this option for a few issues and see how it works out.

The annual meeting of NAWCC Chapter 173 will take place at the NAWCC Mid-Western Regional. The regional will to be held August 2-3, in Valparaiso, Indiana. 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. See you there?

Bruce Forman

Pre Friction Jewelling Tools

By John S Koepke
jskoepke@comcast.net

With the ease and simplicity of the modern friction jewelling systems now in use, there is hardly any occasion for setting a jewel in a bezel unless the horologist is looking for an authentic restoration. The purpose of this article is to review some of the pre friction jewelling tools in use by the watchmaker before the friction jewelling system became available. The illustration in figure 1 shows a jewel set in a bezel or rubbed-in type of jewel hole. The illustration shows the two forms of the tools used to set the jewel.

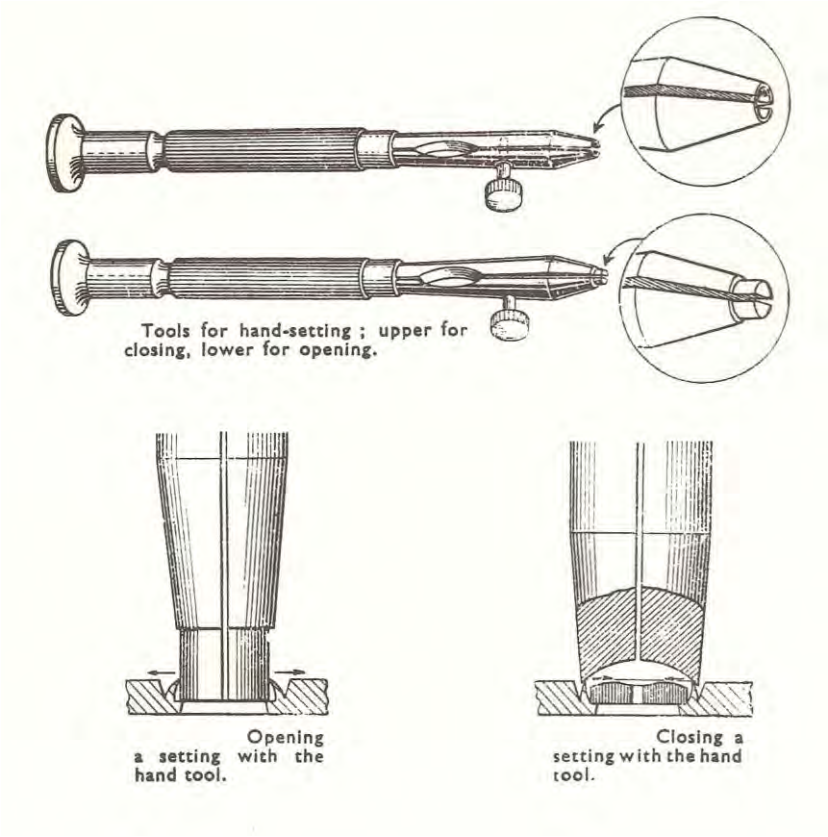

Figure 1. From Practical Watch Repairing by Donald de Carle.

These types of tools are commonly used by the watchmaker for bezel jewelling work. At the end of this article there are two pages of illustrations for eight different jewelling tool patents (see figures 17 to 24). For more information on these patents a Google search on the patent number will bring up the complete patent. Patents are interesting reading as they explain more fully the design and use of the tool. The jewel bezel opening tool shown in figure 1 is patent #188,757 issued to A. Schwerter on March 27, 1877 (see figure 22). These types of tools were for opening and closing the jewel setting only. Schwerter's earlier patent #172,183 was for cutting jewel sinks as well as the rim that holds the jewel in place (see figure 21). These tools are found in most of the early tool catalogs (see figures 14 and 16).

Figure 2. Three sets of bezel tools.

Figure 2 shows three different sets of bezel tools. The set on the left has three tools of different sizes for opening the jewel setting. The thumb screw on the side of the tool allows for the jaws to be adjusted to the correct size. These tools often came in a set of three openers or three closers. The set in the middle has six tools, three are openers and three are closers. The set on the right has three double ended tools with three openers and three closers. See figures 14 and 16 for illustrations of these types of tools from early material and tool catalogs.

Figure 3. Three Crosby type jewelling tools.

The three jewelling tools shown in figure 3 were patented on Dec 11, 1866, patent #60,343 for the setting closers and on Jan 21, 1868, patent #73,511 for the setting openers by A. C. Crosby (see figures 19 and 20). Each set contains both the opening and closing tools. Only the tool at the bottom is marked Crosby on the end of the opener handle. The sets on the left and at the bottom each have eight double ended closers that fit in the slim tool. The set on the right has six double ended closers. The closers are not adjustable, while the openers are. These sets were for opening and closing the jewel setting only. Figures 14 and 16 show examples of these tools in trade catalogs priced from $1.25 to $2.00. Figure 13 is a copy of the instruction sheet found folded in the lid of the tool at the bottom. The price for this tool was $5.00.

Figure 4. Four tools for cutting jewel sinks and rims.

The above tools shown in figure 4 are among the more difficult to find. These examples are probably of Swiss or German manufacture. Patent #172,183 issued Jan 11, 1876 to A. Schwerter seems to be a similar type of tool (see figure 21). Tool catalogs of the period list these tools as Swiss, Zipperer and Hecht. The tool in the bottom of figure 4 is marked on the gauge as Dausch's NCHF. These tools were used to cut the jewel sink and rim for locking the jewel in. See figures 15 and 16 for a nice selection of these tools. The tool on the left is different from the others in this group. It has a group of 12 cutters seen in the middle of the box that fit on the arbor at the upper right in the box. The arbor in the upper left of the box is used to cut the rim to hold the jewel. The other three tools are a double cutter arrangement that is adjustable. The gauge can be used as a guide to help set the tool. These three tools cut the sink and rim at the same time for the jewel setting.

Figure 5. Two Freeing tools or Senkspiel tools.

Figure 6. Freeing tool and Anderson patent jewelling tool.

The tools shown in figure 5 and the tool in figure 6 on the left are of Swiss or German manufacture. The tool on the right in figure 5 has printed on its lid Senkspiel doppelt neues System (see figure 12). Senkspiel seems to have several meanings such as set of champers, freeing tool or sinking tool. Ted Crom's book Horological and Other Shop Tools 1700 to 1900 shows this type of tool to be one of the first of these bezel jewelling tools. A catalog by Faure Frères au Locle, which he dates circa 1860, shows a similar tool. These tools can also be used to recess screw heads, wheels and other parts as needed. The tool on the right in figure 6 is an H. Anderson's tool, patent #246,587 of Sept 6, 1881 (see figure 23). Figure 7 shows a close up view of the cutters and other tools in the set.

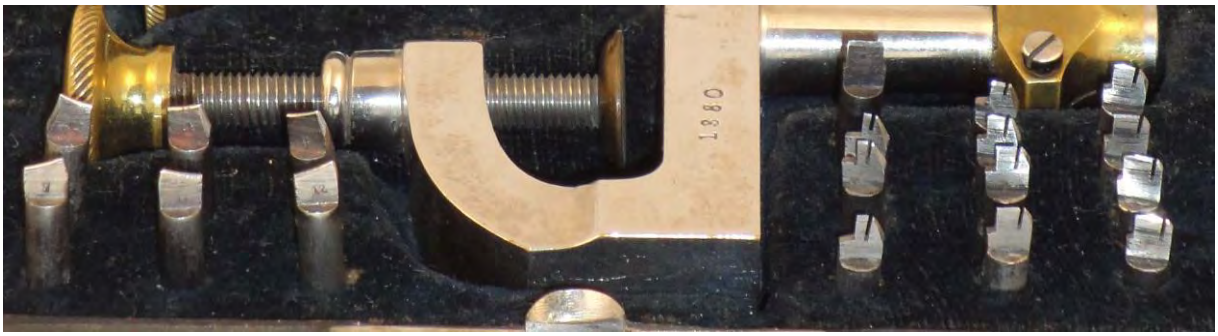

Figure 7. Close up of cutters and other tools in the Anderson jewelling set.

The cutters are single end while the other tools are double ended. The Anderson tool is one of the hardest sets to find. Figure 14 shows the tool in a catalog for $5.00 while figure 8 gives a good description of the tool.

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Figure 8. 1900 Benj. Allen & Co. catalog showing Anderson's jewelling tool.

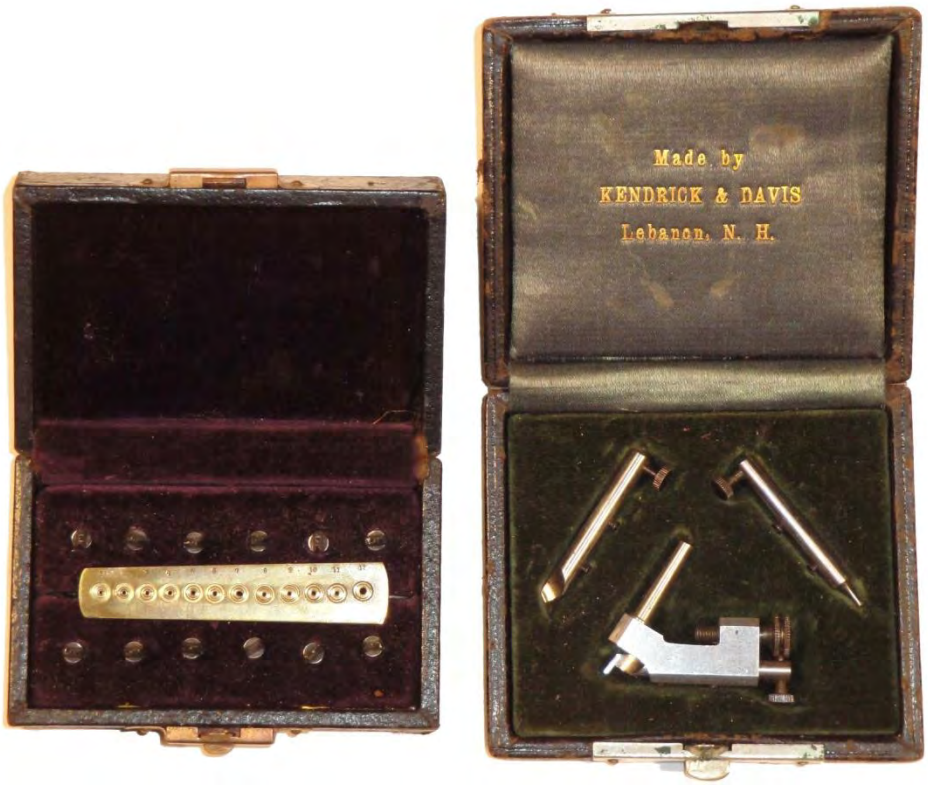


Figure 9. Jewelling tools for the watchmaker's lathe.

The tool in figure 9 on the left is Anderson's jewelling cutter set designed for the watchmaker's lathe, with a gauge showing the 12 sizes. Figure 14 shows this set of tools for $3.00 in 1910. The tool on the right is a K&D #228 jewelling tool for the lathe patent #693,399 (see figure 24).

Figure 10. Jewelling tool.

The jewelling tool in figure 10 is another common tool for opening and closing the jewel setting only. The tool comes with four setting openers and three setting closers as well as one cutter for removing burs. The handle is shown with the cutter installed. The knob at the end of the tool is used to open and close the jaws on the seven openers and closers. This tool sold for $1.75 in 1910 (see figure 14).

Figure 11. Thoma jewel setting opener.

The tool in figure 11 is an early jewel setting opener that was listed on an eBay auction. It was patented on Aug 6, 1867 patent #67,162 by A. Thoma (see figure 17). It is an example of an early adjustable jewel setting opener. Thoma also took out patent #70,049 for a jewel hole closing tool (see figure 18). Figure 16 shows this tool in an early tool catalog. The tool shown in figure 10 may be a later design improvement.

Figure 12. Jewelling tool boxes.

The three boxes shown in figure 12 are interesting because of the information printed on them. The top left box is from Figure 9, the tool on the left. The bottom left box is also from figure 9, the tool on the right. The box on the right is from figure 5, the tool on the right. Georg Jacob, Leipzig printed on the lower right of the box was a German tool dealer.

Directions for Using Crosby's Jeweling Tools.

The tool comprising the hub with centre and side points is called the Opener, or tool for turning up the bezel. The center-point moves easily through the hub, and divides the spring side points, which are curved a little at the ends so as to prevent them from slipping out of the bezel. To operate this tool, first free the bezel of the pieces of broken jewel, then take the tool between your thumb and finger, and place the forefinger on the top of centre-point, hold the tool upright with the plate or bridge in which a jewel is to be set, place one of the curved side points inside the bezel and on the jewel-seat on the side towards your hand, and press gently on the centre-point until the opposite side fills the opposite side of bezel, and is on the jewel-seat, then turn the hub half or once around. If one operation does not open the bezel wide enough, repeat and press a little harder on the centre-point. But little pressue is required except on a very thick bezel, and no pressure should be applied to centre-point while turning the hub around—the centre-point being soft and the sides hard the centre-point cannot slip up. One hand operates the tool, while the other holds the plate or bridge.

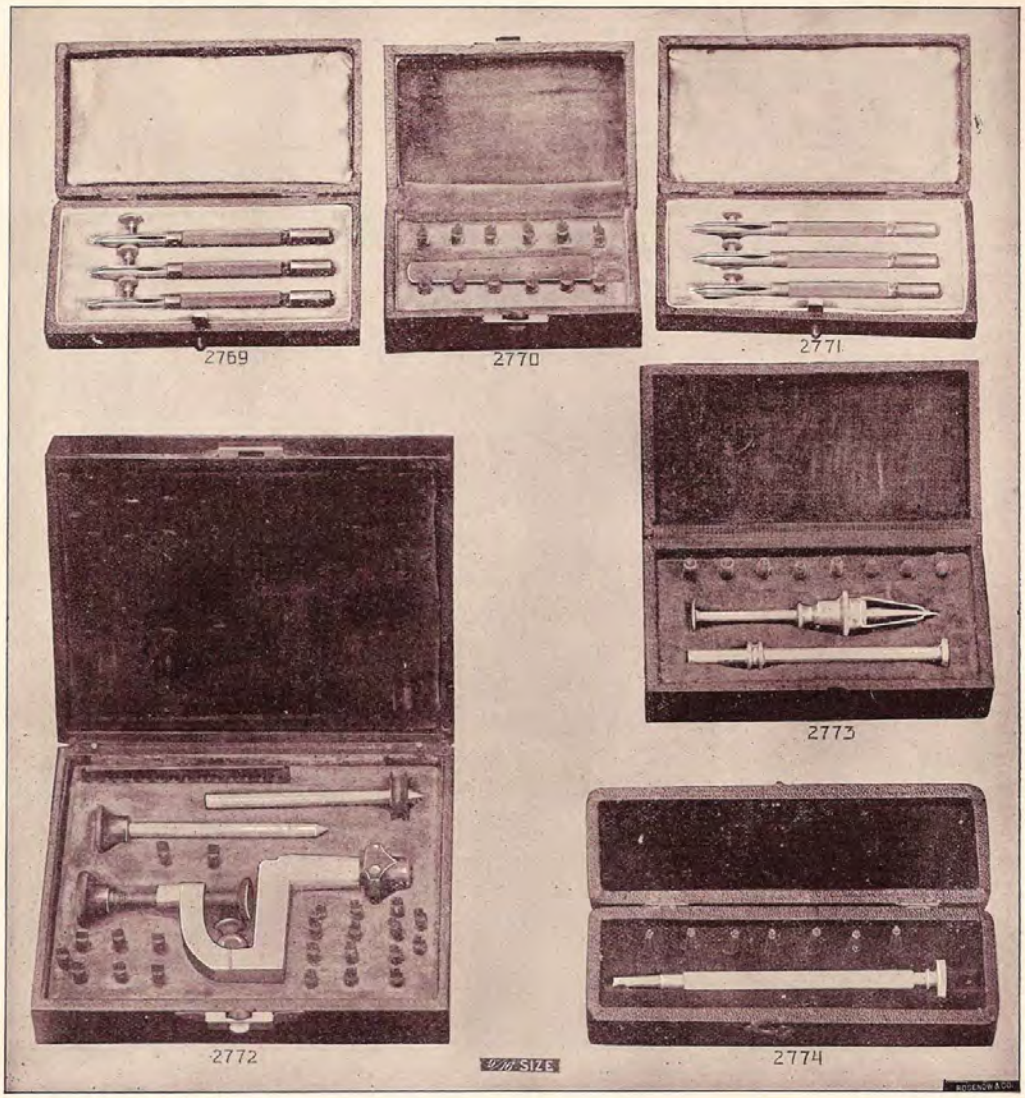
The eight steel pieces, (in the small box) making 16 sizes of polished concaves, together with the hollow handle, comprise the Closers, or tools for closing down the bezel after the jewel is in position. To operate these, select one of the sizes that will cover the bezel and put the opposite end in the handle. (The Closers may at first fit tight in the handle: force one in half its length and they will fit easier.) Hold the tool upright with the plate and place the Closer on the bezel and jewel and press on and turn the handle back and forth two or three times. Small and light bezels require light pressure and thick ones more.

The diamond Broaches are for enlarging holes in jewels. The best way to operate them is to fasten one in a lathe, and after the jewel is set place a drop of water on the jewel and place the point of Broach in the jewel and give the lathe motion; but the jewel must not be forced tight on the Broach.

These tools receive and merit the approval of watchmakers generally. Among their points of merit are these: But little experience is required to operate them. A jewel may be set in about the time required to set a plate properly in a Universal or other lathe, and with them a jewel can be set in the same place the broken one occupied. The Opener will turn up a very thin and light bezel (even if a part of it is broken off,) without injury, or a very thick one with the same facility as a light one, and though it be a very thick one it will be forced upright, as the centre-point acts on the side points directly at the end where the bezel bears against them, so that there is no chance for the side points to spring and the bezel will open just as wide as the tool is set and no more.

PRICE PER SET, $5.00.

Figure 13. Instructions for using the Crosby jewelling tool.

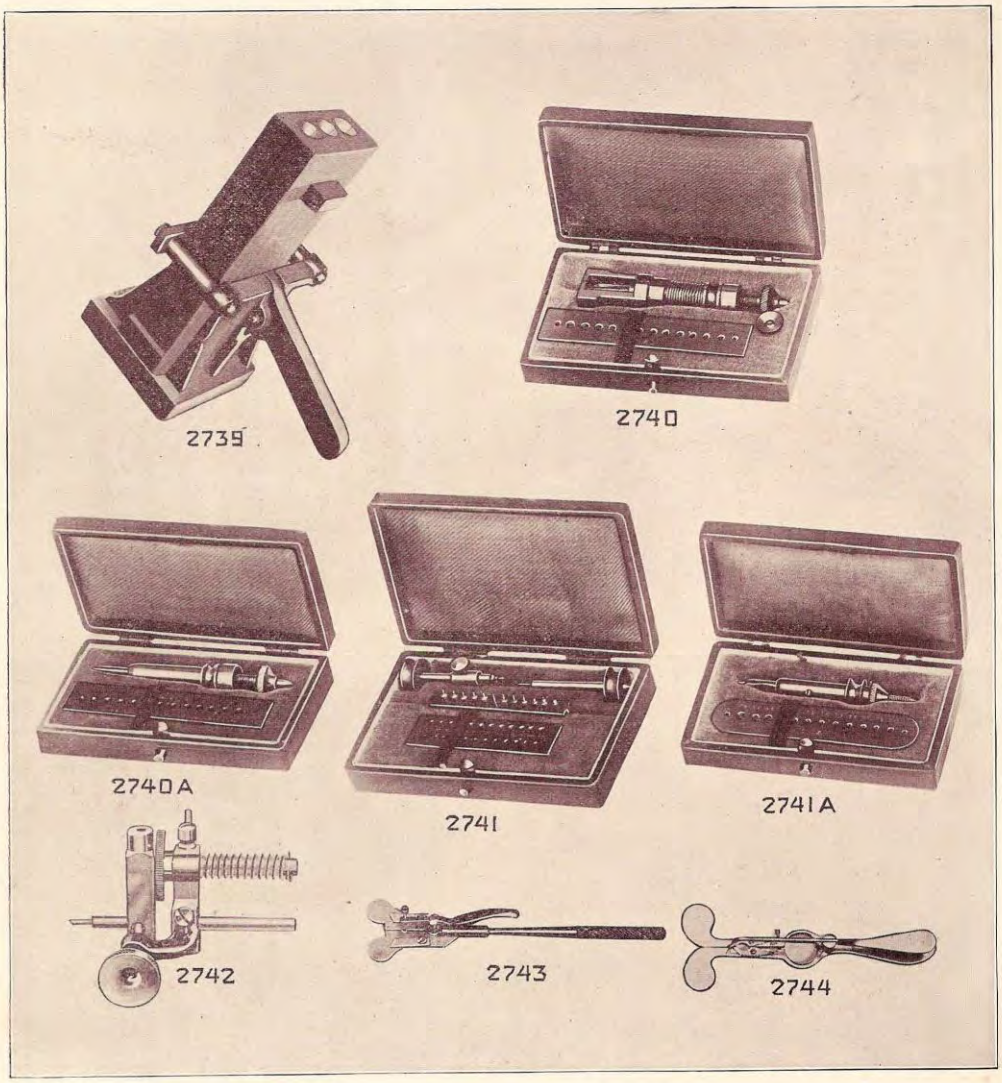


J JEWELING TOOLS.

No. 2769.	Set of 3 Jewel Bezel Openers in case, nicely made	$1.00
" 2770.	Anderson's Jewel Cutters, fits No. 38 wire chuck, per set.... $3.00 each....	.35
" 2771.	Jewel Bezel Closers in case, per set of 3, nicely made	1.00
" 2771½.	Set of 6 Closers and Openers, in box	2.00
" 2772.	Anderson's Patent Jeweling Tool, complete in morocco case as per illustration	5.00
" 2773.	Improved Jeweling Tool	1.25
" 2774.	Jeweling Tool with 4 openers and 3 closers, one cutter and handle complete, as illustrated	1.75

Index : Jacot Pivot Lathes.....see Classification L
Jointers, Ring..... " " R

Figure 14. Henry Paulson & Company catalogue #10 circa 1910, page 118.



I-J INGOTS AND JEWELING TOOLS.

No. 2739. Muehlmatt's Ingot Mold. Non-adjustable type. Wire mold will cast square bars 6 inches by 3/16 inch by ¼ inch by 5/16 inch; rounded corners. Rectangular mold may also be had 1 inch by 1¼, 1¾ and 2-inch thickness; other widths made to order.....Price, each, $ 4.00

" 2740. Zipperer's Jeweling Tool 2.25

" 2740A. " " " 2.00

Clean cut Jewel Settings may be turned out with these tools in remarkably short time.

" 2741. Zipperer's Jeweling Tool 2.00

No. 2741A. Zipperer's Jeweling Tool.....$ 1.50

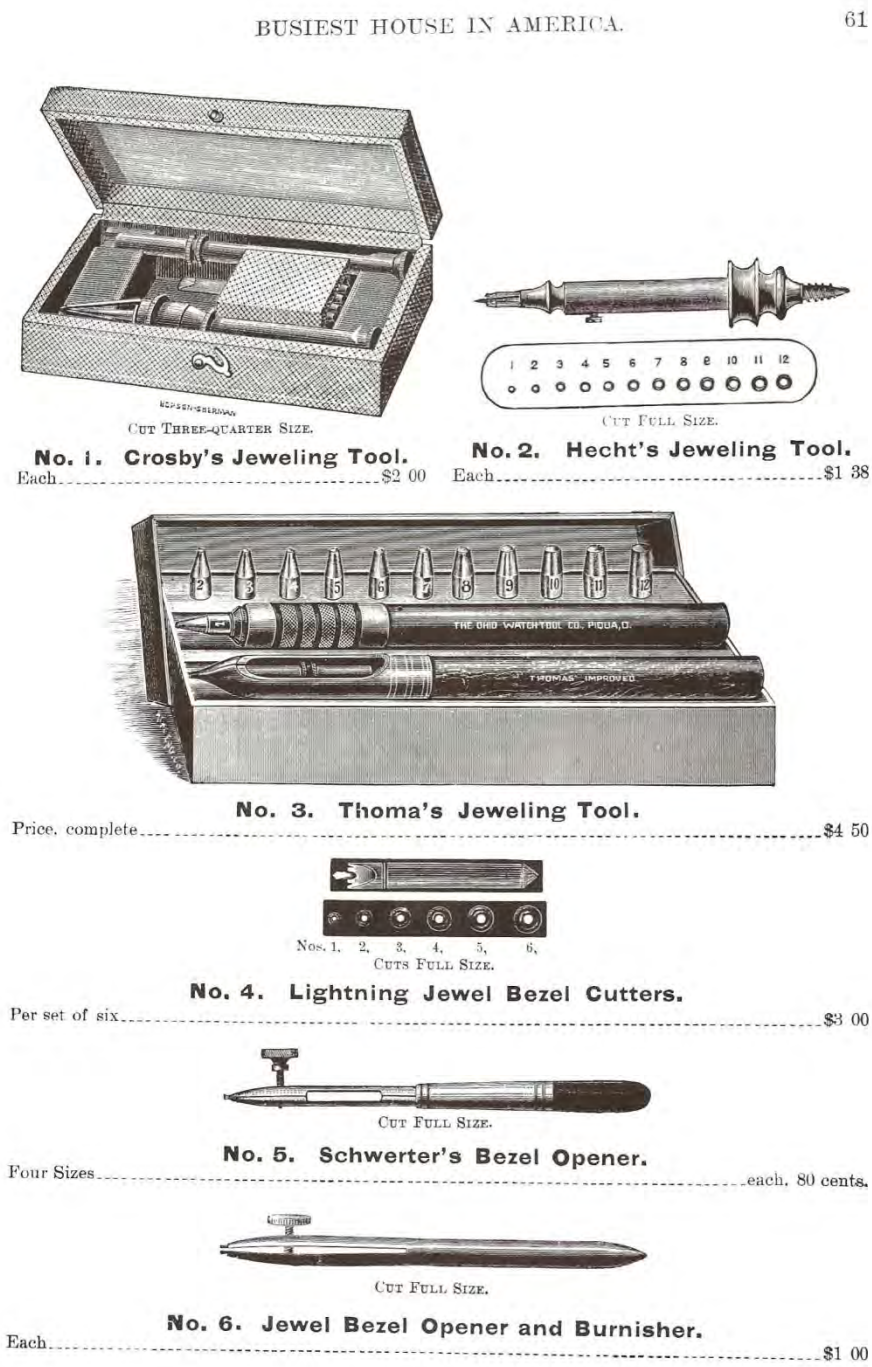
" 2742. Ransom Jeweling and Facing Tool..... 6.00

" 2743. Marsh Pallet Stone Setter. For straight line escapement or for right angle escapement. A very practical tool, with full directions. Lever holds pallet in position..... 1.75

" 2744. The Only Pallet Stone Setter. Similar to above in construction, excepting that this is supplied with guides or gauges for adjusting pallet stone 2.00

INDEX: Jacot Pivot Lathes.....see Classification L
Jointers' Ring ..... " " R
Jewel Millers ..... " " M

Figure 15. Henry Paulson & Company catalogue #10 circa 1910, page 114.



BUSIEST HOUSE IN AMERICA. 61

CUT THREE-QUARTER SIZE.

No. 1. Crosby's Jeweling Tool.

Each $2 00

CUT FULL SIZE.

No. 2. Hecht's Jeweling Tool.

Each $1 38

No. 3. Thoma's Jeweling Tool.

Price, complete $4 50

Nos. 1, 2, 3, 4, 5, 6,

CUTS FULL SIZE.

No. 4. Lightning Jewel Bezel Cutters.

Per set of six $3 00

CUT FULL SIZE.

No. 5. Schwerter's Bezel Opener.

Four Sizes ..... each, 80 cents.

CUT FULL SIZE.

No. 6. Jewel Bezel Opener and Burnisher.

Each $1 00

Figure 16. 1887 and 1888 Tools, Materials and Findings catalogue and price list of Lapp & Flershem, page 61.

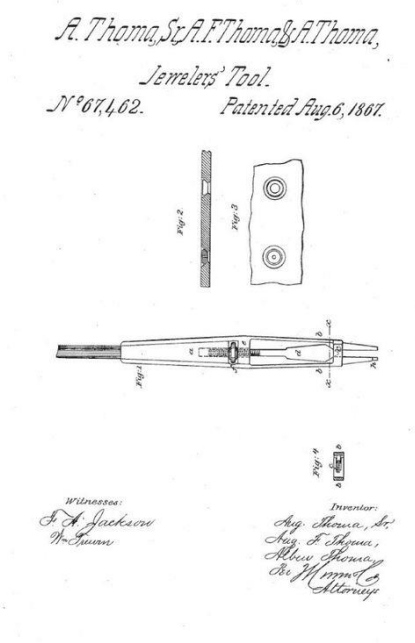


Figure 17.

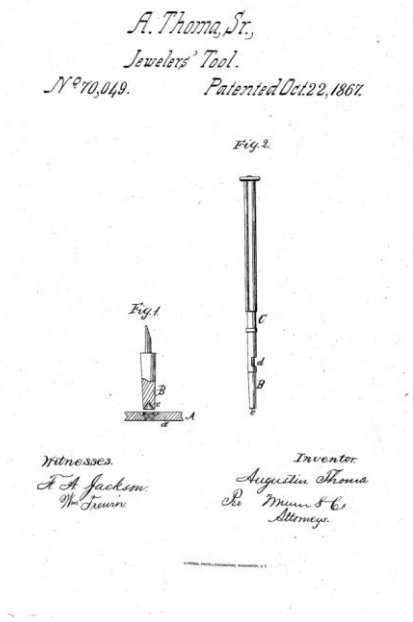


Figure 18.

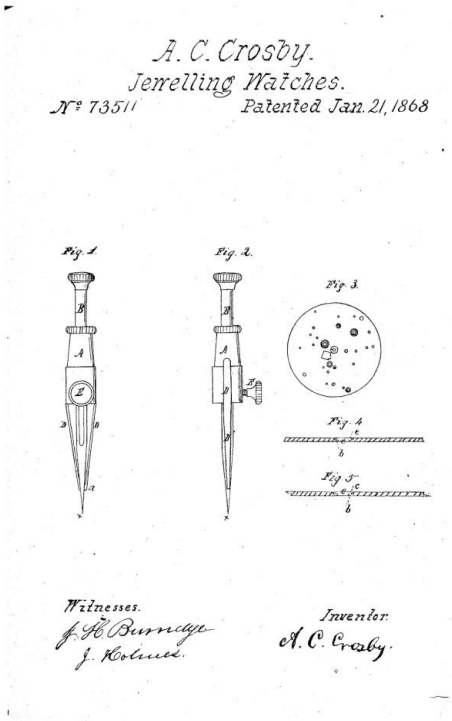


Figure 19.

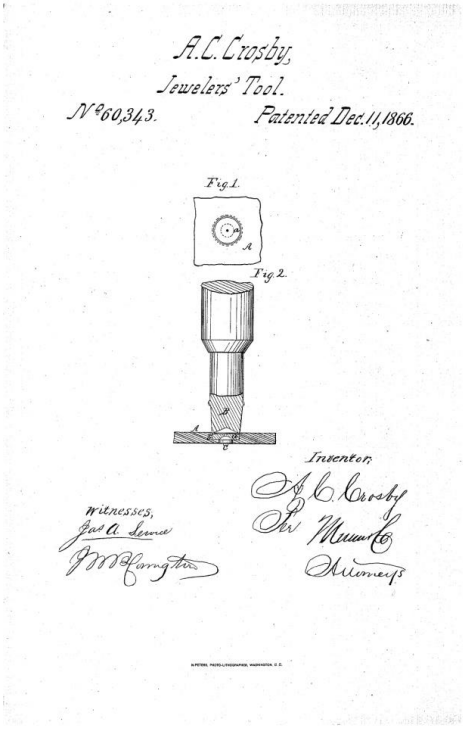


Figure 20.

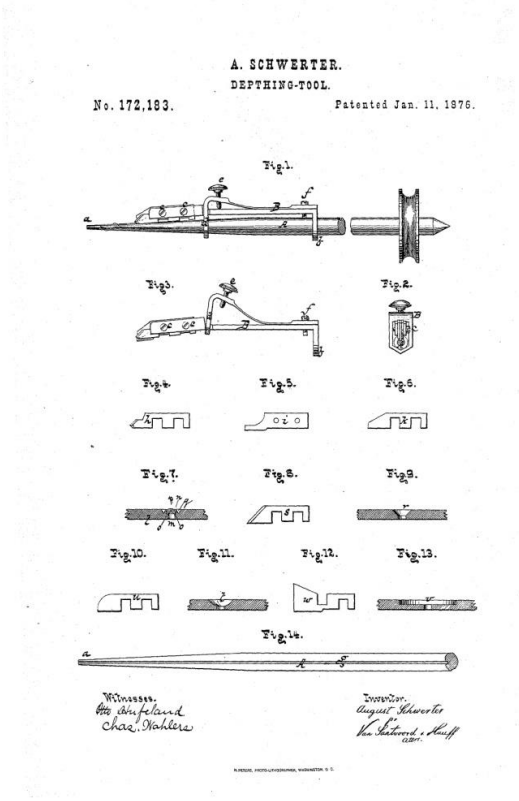


Figure 21.

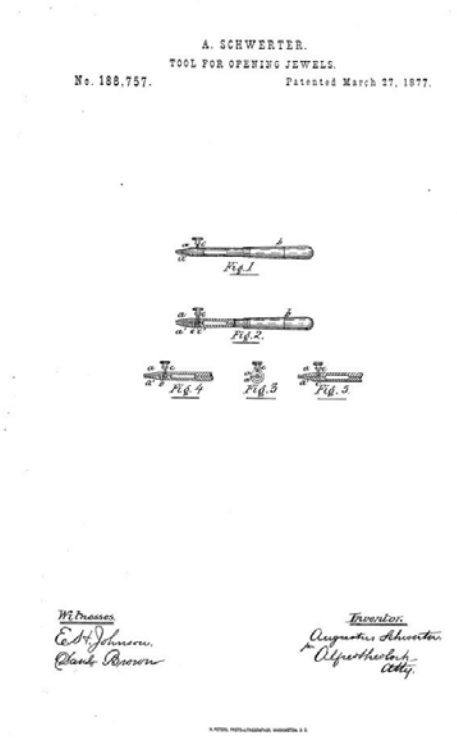


Figure 22.

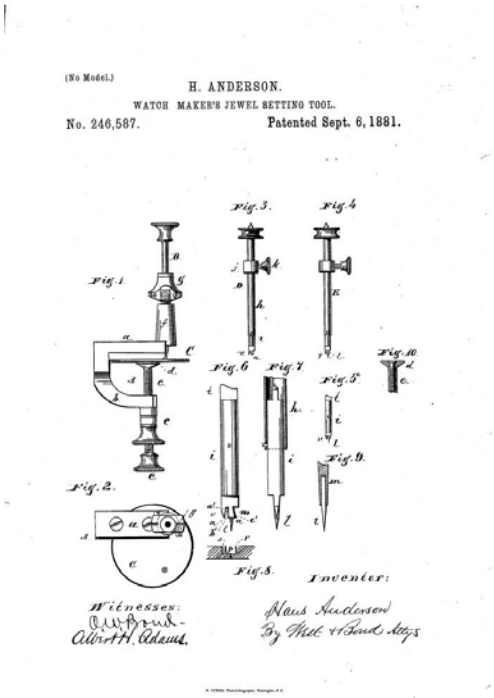


Figure 23

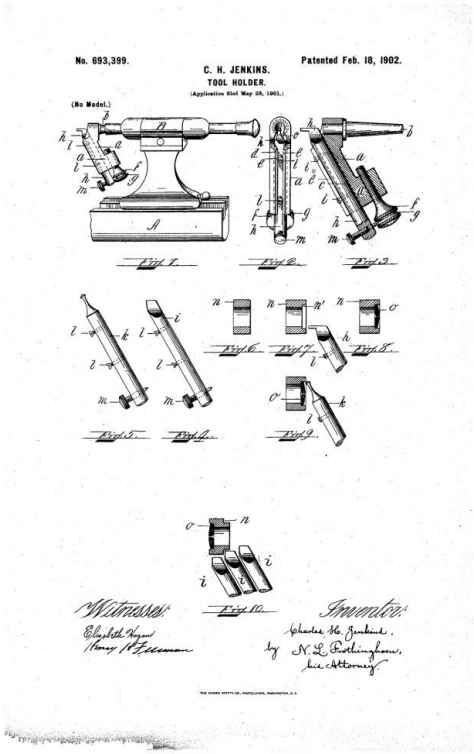


Figure 24.

Horological Tool Chapter 173, NAWCC
Financial Comments
Year Ended 6/30/13

Fiscal year ended 6/30/13 showed basically a break even on Revenues of $1,295. The break even was less than last year's $378 gain. Revenue increased $145 from $1,150 last year because of $365 in CD sales somewhat offset by lower donations. Membership was about the same going from 95 to 99. Newsletter expense was up quite a bit from last year but much of that was timing of printing and paper supplies. The Newsletter is our only expense. The number of Newsletters we publish depends on cost and available articles. 2/3 of the Member's Dues expire at 6/30/13 so we are counting on you to promptly remit your Dues for the new year. We are in sound financial condition with $2,358 in cash, the Chapter's only asset. The cash basis operating statement simply shows cash in and out. Notionally, 99 Members paying their annual dues should give us enough revenue to cover 4 newsletters and about break even. Selling CD's helps also. Bruce is very resourceful in coming up with interesting articles and often seems to find interesting tool guys to write about. Of course, he still needs articles for the Newsletter so please continue to send them in. Any suggestions positive or otherwise are welcome. A summary of results of operations follows:

Respectfully,
Dave Kern, Treasurer

Tool Chapter 173, NAWCC
Operating Statement
June 30, 2013

Cash Balance - June 30, 2012	$2,346
Revenues	
Dues	$1,295
Total Revenues	$1,295
Expenses	
Newsletter costs	$1,284
Total Expenses	$1,284
Net Income	$ 11
Cash Balance - June 30, 2013	$2,358