

Newsletter of the Horological Tool Chapter #173 of the NAWCC

Tool Enthusiasts' Round-Up

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A late 19th or early 20th Century Uprighting tool

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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. Editorial help and writing assistance are available to help you organize an article. Submissions should be sent to the Editor.

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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Editor's Message – Chapter Dues

It is that time again to ask members to send in their yearly dues. Some members have paid for more than one year or have just joined-up. To determine if you need to send money to the Treasurer, look at the mailing address on the envelope you received with this newsletter. The date at which you must pay is printed here. For example, if the mark is "6/2010" your dues expire June 2010. If the mark is "6/2013" your dues expire June 2013. I hope this avoids any confusion that we have had in the past. A coupon is printed at the end of the newsletter for your renewal.

Many thanks to Harvey Schmidt who contributed the photograph of an uprighting tool for the front cover. This tool was probably made near the turn of the last century and is nickel plated. It can be used for uprighting or as a small drill press.

Bruce Forman

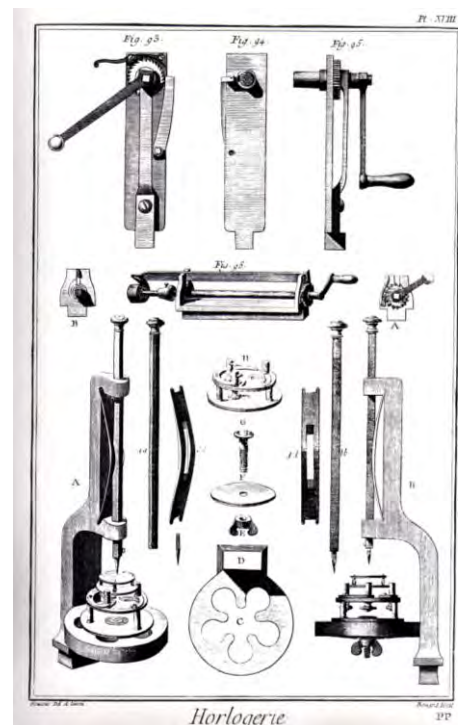


Illustration A and B - early versions of the uprighting or planting tool. (*L'Encyclopedie* by Diderot and Alembert, Paris, France, circa 1770)

The Uprighting or Planting Tool

Horological literature illustrates many different versions of the uprighting tool. Uprighting tools were very useful in the building and repairing of watches and to a lesser extent were also used for clock making. Some of the large clock making tools are 27 inches in height but few examples of these large tools are known to exist. The most popular version of the uprighting tool for watch making was available in the late 18th Century and continued to be made with only slight modification until the first half of the 20th Century, Figure 1.



Figure 1. The most popular version of the uprighting or planting tool.

Although English language tool catalogues use the term “uprighting tool” to describe this object, European sources prefer the term, “uprighting planting tool” or just “planting tool.” Tool catalogues printed in the late 19th Century show that these tools could be purchased in at least two different sizes for watch repair. Some of the catalogues also show a nickel plated version. Tool collectors can still find examples in their original box with a set of movement rings. Trade catalogues often show these tools with no box suggesting that this could have been an option.

Uprighting tools are rarely used today, but they were a necessity for locating bearing holes before modern manufacturing methods were introduced. Early watchmakers in England and Switzerland relied on many independent suppliers for their unfinished parts. The watch frame was supplied as a unit, with the pillars and plates already assembled. In this way, the frame maker could manufacture a generic frame in large quantities at a very low price.

The watchmaker took the frame and drilled bearing holes in the lower plate at the appropriate center distance for the gears he was using. To locate the bearing holes on the upper plate, the frame was placed into the uprighting tool and the lower pump center of the uprighting tool was positioned into one of the predrilled bearing holes in the lower plate. The upper pump center was then lowered into the top plate where it made a small indentation, Figure 2 (left). This process was repeated until all the holes on the upper plate were located and the bearing holes were then drilled.

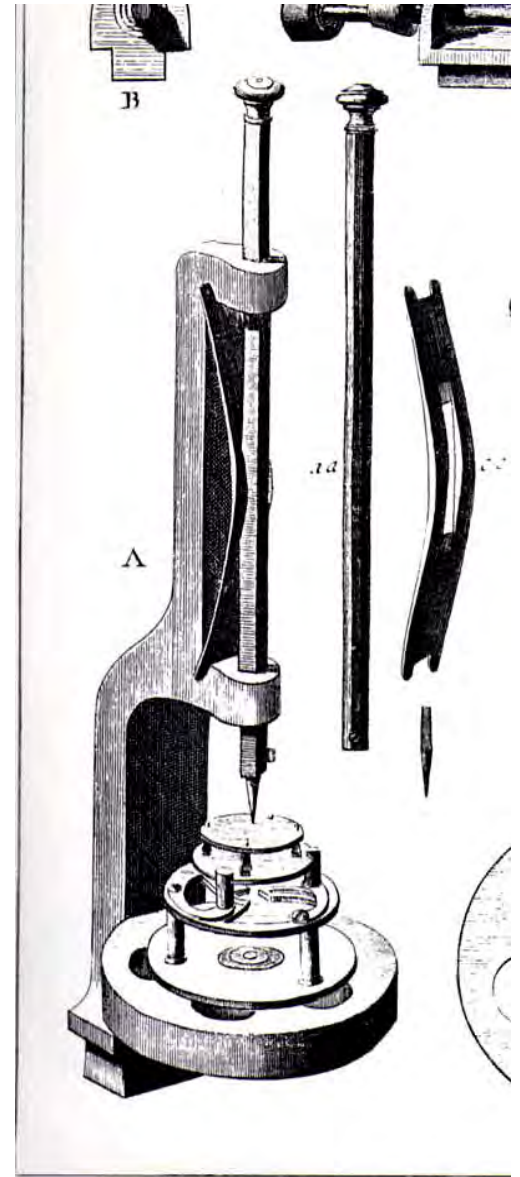


Figure 2. An uprighting tool with a lower pump center (left) and an uprighting tool with no lower pump center (right).

Some uprighting tools did not have a lower pump center. In this case, the upper plate was removed and the upper pump center was lowered into one of the predrilled bearing holes in the lower plate. The plate was clamped into position at that time. The center was then raised and the upper plate of the watch was replaced. The center was then lowered into the upper plate to mark the new bearing hole, Figure 2 (right).

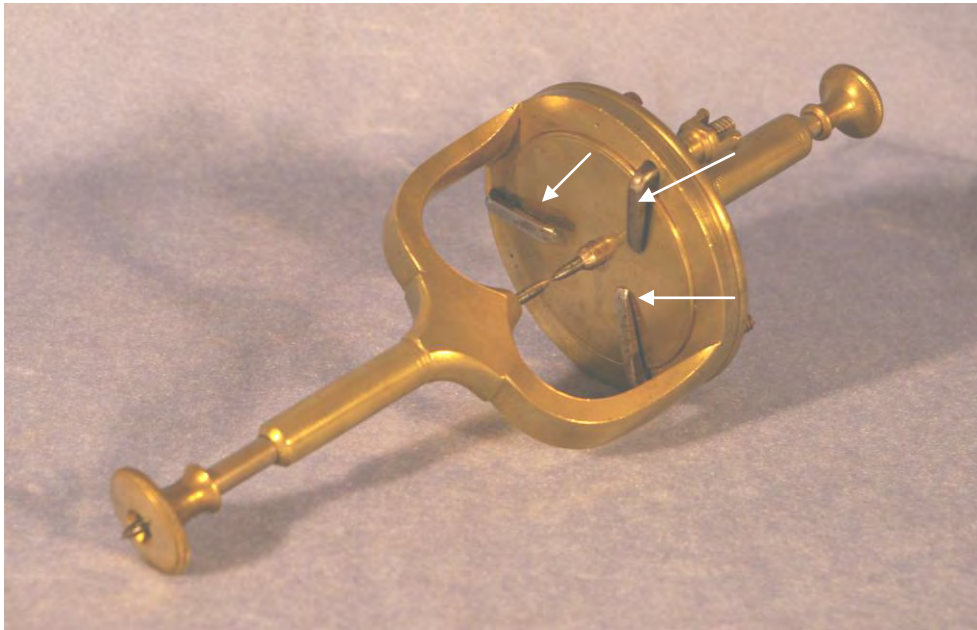


Figure 3. Uprighting tool with three hold down clamps.

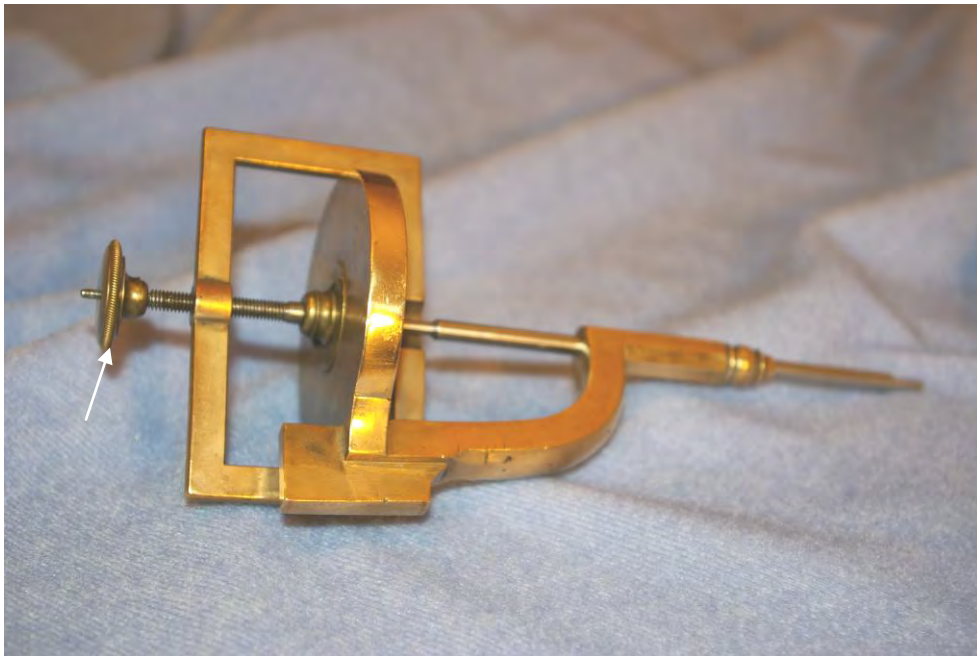


Figure 4. Uprighting tool with a screw jack for clamping, circa 1860.

Most uprighting tools with a lower pump center did not have a clamping arrangement, as shown in Figure 2 (left). However, there is always the exception, as shown in Figure 3, with three hold down clamps to secure the movement. Another movement clamping arrangement is the screw jack, shown in Figure 4. The screw jack uprighting tool design is less common and is known to have been made, circa 1860. All of these uprighting tools were held in a vice while being used.

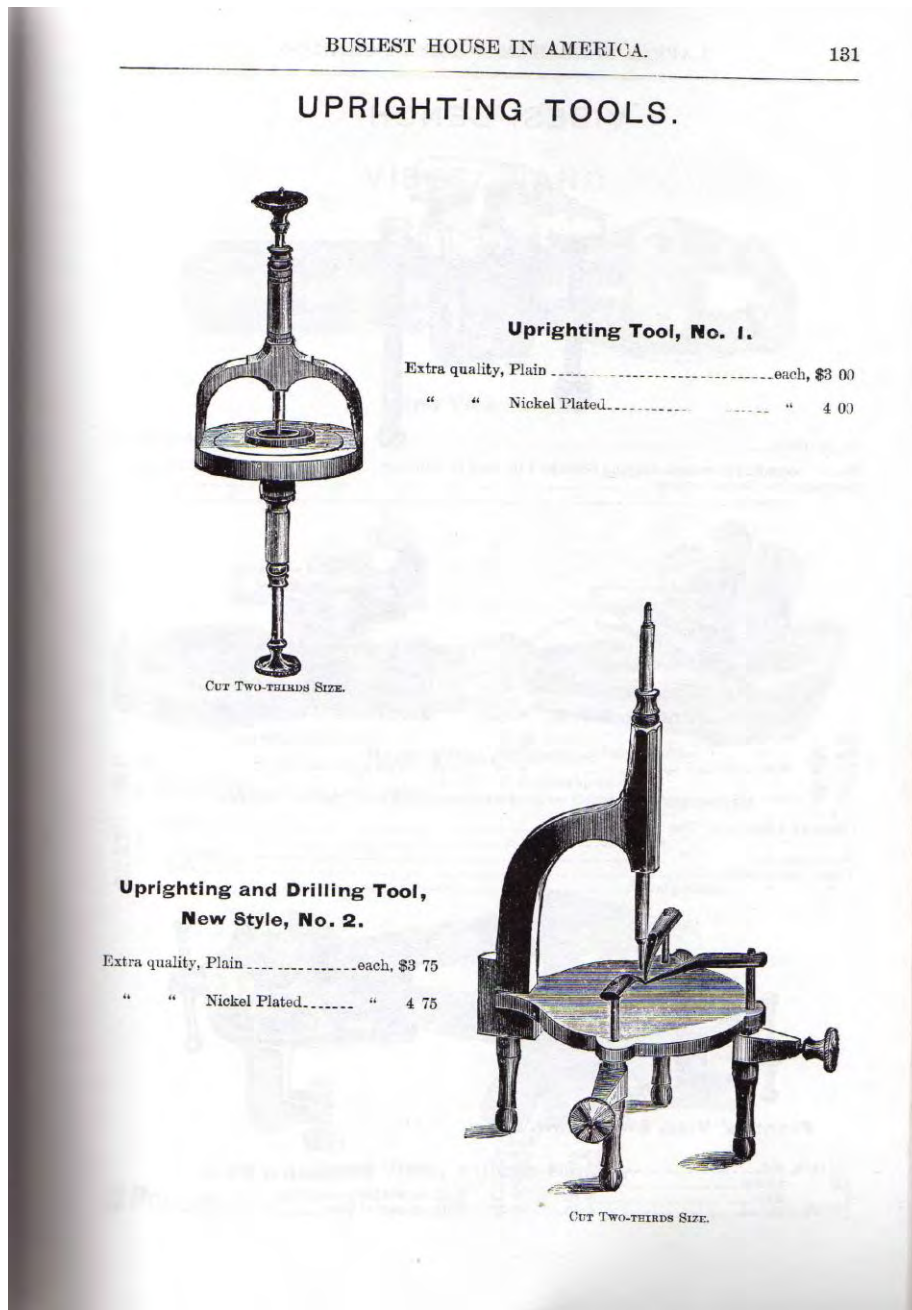


Figure 5. Uprighting tools with and without legs.
(Lapp & Flershem catalogue, circa 1887, courtesy of Greg's Clock Shop)

Free standing uprighting tools were also made. They were sold concurrently with the common uprighting tool pattern as illustrated in the circa 1887 Lapp & Flershem Catalogue, Figure 5. They do not appear to have been as popular as the common uprighting tools that have no legs, based on the number of examples the author has seen. This may have been because they were more expensive and did not offer a significant advantage for planting gears. Examples are known that to have been supplied with a pointed center, a bow drill center, or a “D” type reamer with a bearing pusher. Hence, the uprighting tool with legs could be used as a planting tool, jewellery press, bushing tool, or drill press, if the owner had the correct accessories.



Figure 6. A special 19th Century uprighting tool.

Specialized uprighting tools were also made. Figure 6, shows one tool that was probably a special order for a watch factory in the 19th Century. It is basically a three legged uprighting tool onto which a stage has been added. The stage can move in the x and y axis and can also be rotated like a modern rotary table. What purpose this tool had is unknown to the author but one person has suggested it was used for planting escapements?

Most uprighting tools are unmarked but the vast majority are believed to have been made by tool makers working in Switzerland or France. The uprighting tool in Figure 4, is stamped "JAV" but this is probably the stamp of a previous owner. A second uprighting tool is marked "Georg Jacob, Leipzig", Figures 7 and 8.



Figure 7. Uprighting or Planting tool marked Georg Jacob, Leipzig.



Figure 8. The Georg Jacob mark.

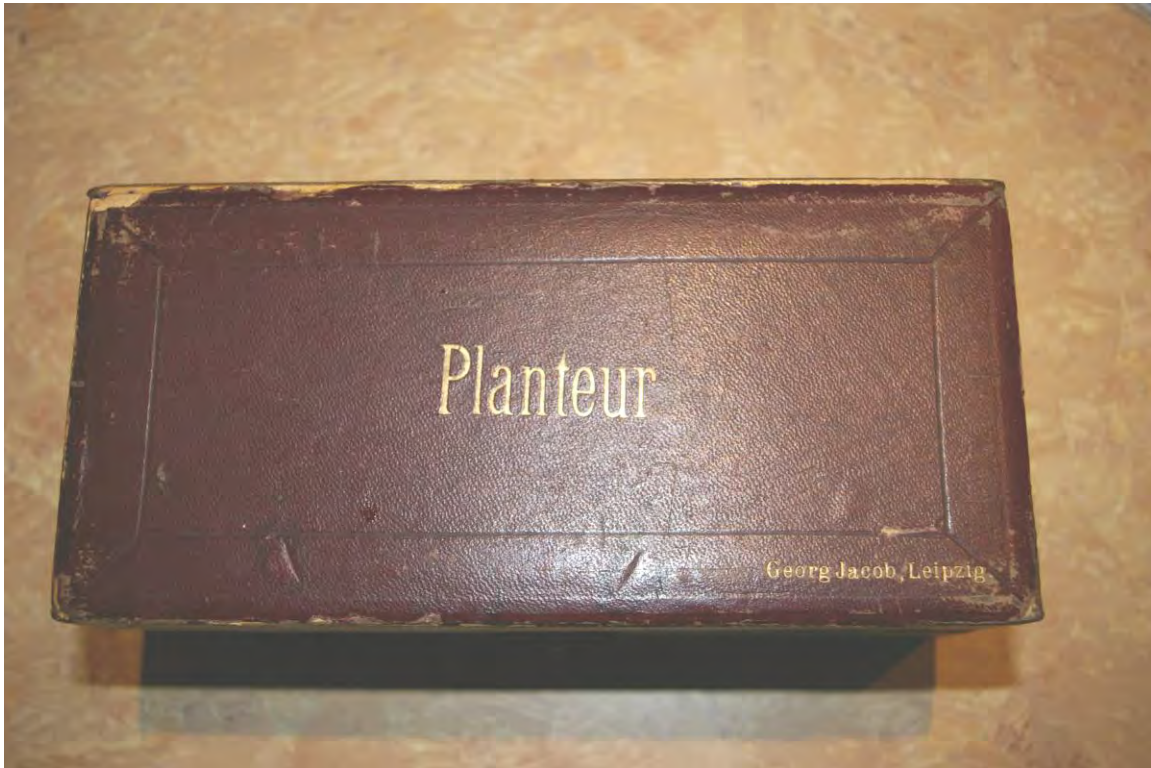


Figure 9. The original box also marked Georg Jacob, Leipzig.

Little is known about this firm but it appears that Georg Jacob was a supplier of tools and machinery to the watch making trade, circa 1899-1944. This dating would fit with the type font printed on the uprighting tool box lid and by the fact that the box lid is held closed by a single latch rather than two hook and eyes, Figures 9 & 10.



Figure 10. The single lid latch.



Figure 11. Comparison of the Georg Jacob knurling (center) to other uprighting tool knobs (left & right).

There are also many construction details that differ from most other uprighting tools as well. First, the tool is slightly larger than most uprighting tools and the body construction has more screws. Most center shafts are made from a high tin bell metal that appears to be white in color, the Georg Jacob center shafts are made of yellow brass or bronze. The knurled knobs of the centers are straight rather than curved as found on older tools, Figure 11. This may well have been one of the last uprighting tools to have been manufactured before production ceased in the first half of the 20th Century. By that time, factory production methods had made this tool obsolete. However, they still appeared in tool catalogues which indicates that uprighting tools were useful for reestablishing the location of a worn bearing hole in a watch plate.

Bruce Forman
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The author would welcome any information from members concerning the firm of Georg Jacob. Was this firm just a horological supply house that sold tools or did they actually make them? Please contact your editor with information.

Upcoming Features

The Ted Crom Tool Collection
A Visit with J. M. Wild – Horological Tool Maker
The Escapement Depthing Tool
Traditional Methods to Make Hairsprings
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Wanted

Deckel, Aciera, Rivett, Schaublin, Lorch, Hardinge, Levin, lathe or mill accessories wanted. Will trade, or sell if I have duplicates. Mark Fulmer Markusful@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. 80634, Tel: 970-353-8561.

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

American Watch Tool lathe, length of bed 28", swing is 7", Includes compound slide and one 3WO Hardinge collet. Chuck in tailstock not included. \$450. Deena Mack, 644 Geise Rd. Attica, NY 14011, 585-591-1343, email dmack18@rochester.rr.com.

For Free

Members Only! modern spring collects, 1/4, 5/16, 3/8, 1/2, 5/8, 7/8, 3/4 inside diameter. I am not sure what they are but they measure 2.010" high; the overall outside diameter is 1.595". It looks like a 10 degree taper on one end and a 20 degree taper on the other, 18 pieces and many are unused. Contact the editor if you can identify them or would like them for the cost of postage, about 10 lbs shipping weight?

Dues Renewal Form

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Make checks payable to "Chapter 173" and mail to Dave Kern, 5 Hilltop Drive, Manhasset, NY, 11030. Yearly dues are still only \$10.