

# WOLF'S PLUMB BOB NEWS 2012

Issue 07 July 1, 2012

## MINIATURE PLUMB BOBS

Author: Wolf Ruecker

www.plumbbobcollectors.info

Dear Fellow Collector,  
Dear reader of the PLUMB BOB NEWS,

Please, as always I am in search of new photos, catalogs, articles or personal stories about any aspect of PLUMB BOBS from you. Any help is appreciated.

**If you have any information or pictures for these themes, please let me know.**

Thank you, looking forward to hearing from you

Wolf

## MINIATURE PLUMB BOBS

### Content

1. INTRODUCTION .....	79
2. WHO IS THE MAKER?.....	79
3. TOOLS / MACHINES .....	80
4. PLUMB BOBS .....	81
5. OTHER TOOLS / THE FUTURE.....	88
6. REMARKS.....	88

### 1. INTRODUCTION

Dear Fellow Collector,

Perhaps you already saw offers of miniature plumb bobs of excellent quality on Ebay. I contacted the seller of these nice items, **David Hale'** and asked him to tell us more about his work, making miniature tools (not only plumb bobs). Our work publishing information about plumb bobs was the initial impetus for him to start making plumb bobs – both large and small.



David Hale'  
with his David White 8300  
and gear bob in use

Here is his story:

### 2. WHO IS THE MAKER?

My name is David Hale' and I live in Vermont in the United States. I was trained as a visual artist and taught Photography to College students for over thirty years. I now teach part-time at one of Vermont's State Colleges, and I make part of my living doing precision metalworking and precision woodworking in my home workshop and studio. In 2010 I discovered the wealth of online information that Wolf and others have made available about the world of plumb bobs and this inspired me to begin studying plumb bobs and to begin making them with my available tools and skills.



### 3. TOOLS / MACHINES

I have assembled an array of hand tools, power tools and small machine tools to take on the range of work that I am interested in doing for myself and in response to the variety of jobs that appear at my door.

- An old Atlas 10” lathe,
- a small Taig bench mounted milling machine
- a floor mounted drill press
- and a wide array of files and hand tools

allow me to make plumb bobs one at a time or in very small batches.

From looking at all the plumb bobs I have viewed to date, I understand something about the unique appeal that such a simple tool in its wide range of variations offers to the Plumb Bob Aficionado.



10 inch ATLAS lathe



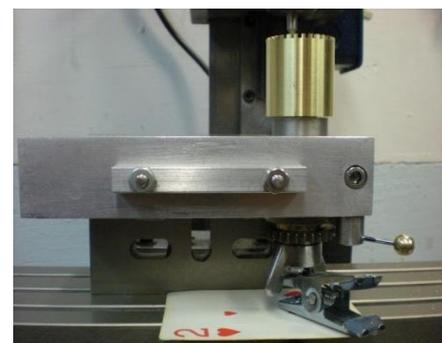
a TAIG bench mounted milling machine



Tailstock mounted adjustable hollow mill. The 3 cutters are advanced simultaneously by a threaded ring so that once adjusted it allows me to repeatedly reduce the diameter of rod stock to a specific diameter without having to stop the lathe and check the progress with the digital caliper



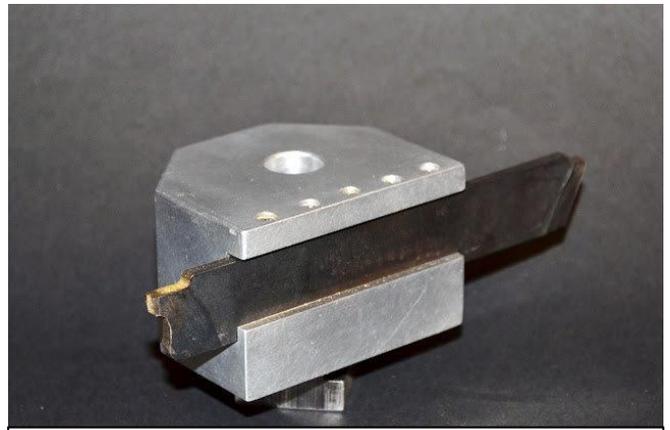
floor mounted drill press and many hand tools



indexing jig



shop made lathe tooling



tool post mounted form tool allows me to make small beads or other profiles



tailstock mounted knurling tool with 3 knurls used to knurl small diameters without having the work deflect from the force applied by ordinary knurling tools that only use two or even just one hardened steel knurl



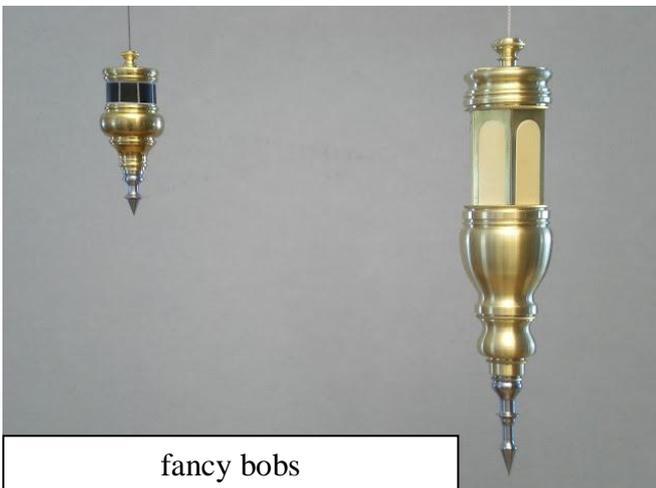
digital calipers and magnifier which are essential for doing this kind of work

#### 4. PLUMB BOBS

I have created a series of plumb bobs that have interested me and which I have made available to others through Ebay and Etsy.

My work falls into several **different categories**:

- tiny plumb bobs,
- “fancy” plumb bobs
- miniature versions of historically important or special purpose plumb bobs.



fancy bobs



family portrait

The TINY PLUMB BOBS that I have made of brass with small maple or ebony winders are usually **smaller than an inch in size** but have a removable cap, a steel tip and some kind of knurled detail. I recently produced a small batch of surveyor's style plumb bobs that I also offer as a pair of earrings with French hooks – the plumb bob maker's ploy to get someone to buy two plumb bobs instead of just one!



ear rings



US "carrot" with sheath



US "carrot" with sheath  
from the collection of Ulrich Biber, Germany



general plumb bob  
with a cross drilled tip



ear rings



plumb bob with ebony reel



7" fancy plumb bob

I have constructed some larger and more ornate "FANCY" PLUMB BOBS that include ebony, ivory and silver elements. Although these are produced today, I like to think that I make them with as much attention to detail and with as much intention as some of the important fancy plumb bobs made 100 or 150 years ago that are now in the hands of significant collectors.

The 7" fancy plumb bob shown in the photographs sports several different kinds of knurling including rope knurling, face knurling and the less common straight knurling. The ivory panels set in place as sliding dovetails in milled slots were made from the white piano keys of a 100 year old piano that were removed before it was sent to the burn pile.



ivory panels



parts



7" fancy plumb bob



body



cap

A smaller “fancy” plumb bob shown in the photograph has an **inlaid ring of ebony and ivory** glued up from segments and then turned to size on the lathe. The steel tip extends through the length of the plumb bob and is threaded into the cap to hold the whole works together. In this case I started with a commercially available arrow point for making the tip.



ring of ebony and ivory



glue jig



tip and arrow point



parts

**The inverted “beehive”** shaped plumb bob has a small sterling silver ring incorporated into the design. I have never seen another example of a plumb bob with this shape ( has anyone else seen this shape before?), but I imagine that my experience of creating a unique design is only unique unto itself because there are so many remarkable examples of one of a kind plumb bobs in existence.



ebony and ivory



inverted beehive with silver



Inverted beehive with silver

THE GEAR BOB shown in the photographs was completed in 2011 and represents my initial efforts to make the indexing and cutting tools needed to make gears in my home workshop. I made an indexer that makes use of a 30 tooth gear that came from the carcass of a 150 year old telegraph register that was given to me as scrap.

My design includes a spring-loaded shaft with a pinion gear which can be pushed clear of the crown gear to allow the line to be deployed. The line can then be adjusted up or down by twisting the body of the plumb bob as the line is wound upon on an internal spool.

The whole project **took weeks** of effort from initial idea to the finished plumb bob, but I know that it has paved the way for other projects that might involve making small gears.



a gear bob in service



From left to right:

- shop made gear tooth form cutter,
- the 30 tooth indexing gear
- the finished brass pinion gear machined on the end of the shaft



GEAR BOB



internal reel on spring loaded pinion gear shaft



3 inch mechanical plumb bob top & tip

I am most interested in some of the HISTORICALLY IMPORTANT AND SPECIAL PURPOSE PLUMB BOBS such as mining plummets and the miniature version of the plumb bob shown in the drawing included in the 1874 TRAUT patent drawing--US Patent 151521 June 2, 1874.

The miniature Traut pattern plumb bob with built in reel was inspired by the patent drawing but it differs in proportion and detail. It includes a steel tip which the patent drawing doesn't show and I couldn't resist adding the knurled details which also didn't appear in the drawing but add to its visual appeal.

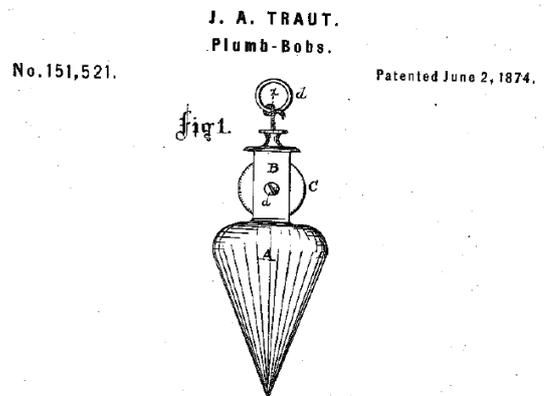
PHOTOS OF THE STANLEY PLUMB BOBS AND PATENT DRAWINGS ARE FROM THE COLLECTION OF WOLF RUECKER



built in reel plumb bob



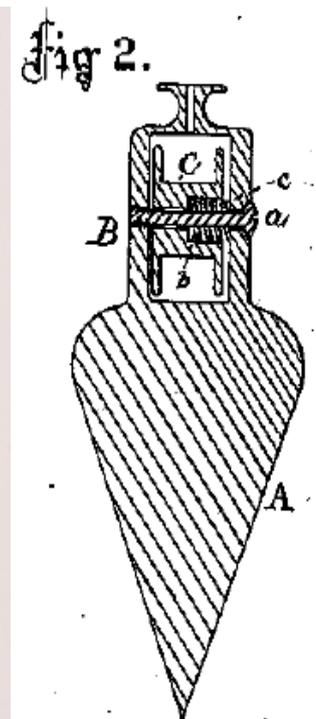
original Stanley (Traut patent) in parts



drawing from the patent sheet



miniature brass plumb with bob built in reel



from the US patent 151521



STANLEY size 1 (brass), 3 (brass) and 5 (iron)

The miniature **MINING PLUMMET** shown in the photograph works just like a full sized one but the experience of making and handling a small one like this allows me to get my hands on something that I could not imagine being able to find or afford. I am delighted to have been able to make some of these miniatures available to collectors at a fraction of the cost of a rare original.



mining plummet



mining plummet



mining plummet



mining plummet



mining plummet wick & cap



original pair of mining plummets in wooden dove tailed box (from the former collection of Bruce Cynar)



original pair of mining plummets (from the former collection of Bruce Cynar)

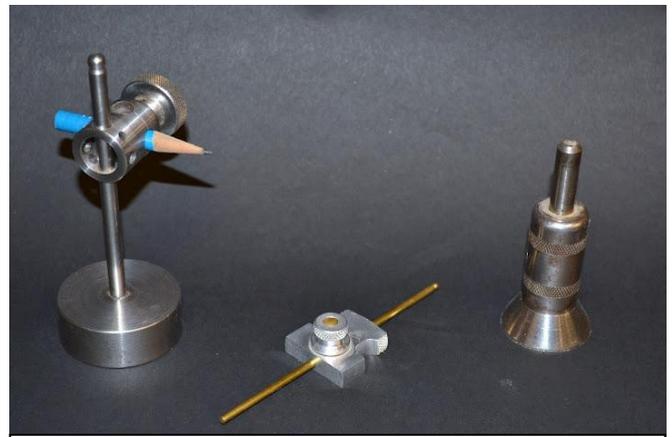
## 5. OTHER TOOLS / THE FUTURE

SOME OTHER TOOLS MADE BY DAVID HALE’:

I have many ideas about making more plumb bobs which I plan to add to our offerings on ETSY <http://www.etsy.com/shop/QualityInVermont> while I remain available to take on custom work and repairs.

David Hale’

David,  
thank you that you shared these information with us.  
Wolf

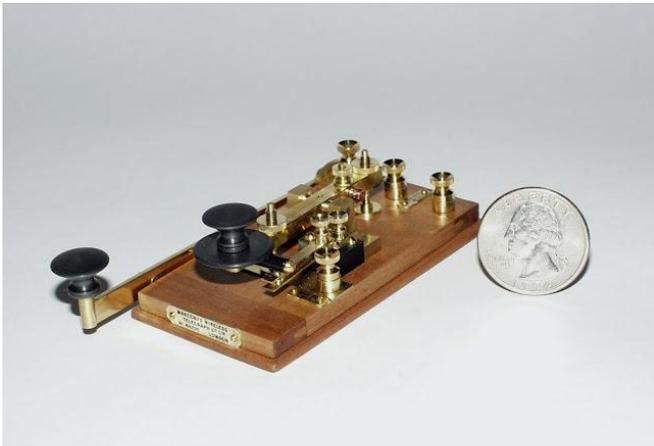


Other shopmade tools left to right  
Height gage that will accept a scriber, a pencil or an xacto knife – very handy  
A shopmade depth gage  
A shopmade bell punch for quickly locating and centerpunching brass rod stock

## 6. REMARKS

This is an article of the monthly published **WOLF’S PLUMB BOB NEWS** that is sent on demand as PDF-file attachment by email. FREE. You can see all former publications on the website [www.plumbbobcollectors.info](http://www.plumbbobcollectors.info)

Remarks and contact by email:  
[plumbbobwolf@t-online.de](mailto:plumbbobwolf@t-online.de)



One Third Size Marconi Titanic Telegraph Key



3 miniature telegraph keys on the milling machine table.  
From left to right:  
½ size Melehan Valiant Double Automatic Telegraph Key circa 1949  
½ size Vibroplex Upright Semi-Automatic Telegraph Key circa 1919  
⅓ size Marconi Titanic Telegraph Key circa 1912



A shop made pump drill made just for fun from the chuck and spindle of a burnt out dremel tool and a length of polished steel rod that came from a discarded ink jet printer. The cross bar with tapered ends and ball details were turned from a piece of 3/4” brass bar stock before the flats were milled on the top and bottom surface.