

WR PLUMB BOB NEWS

2008-04
March 10, 2008



Information for plumb bob collectors

Edited by Wolfgang Ruecker Germany

plumbbobwolf@t-online.de

THEME

PICTORIAL HISTORY OF PLUMB BOBS IN USE

I recall, back in the year 2000, as I reviewed my files on the subject of plumb bobs, that there was virtually no information commonly available showing men actually using plumb bobs in their work.

Bruce Cynar introduced the subjects in his newsletter dedicated to plumb bobs, "The Plumb Line," in 1992, in the essays titled, "The Evolution of the Plumb Bob," and, "How Early Bobs Were Used."

Other than this article and a few items I had received from antique tool dealers, there was simply not a great deal of accumulated information on this subject.

Over the years I have devoted some energy to rectify that deficiency.

As I approached the task I quickly discovered that there were hundreds of representations of other common tools like hammers, saws, planes, levels and dividers but relatively few showing plumb bobs. I am at a loss to explain this oversight in

recognition of the plumb bob, a truly universal tool, employed by so many trades throughout the history of the development of culture.

In 1995 in "A Brief History of the Plumb Bob", Bruce Cynar wrote: "By 2600 BC, we know the Egyptians created the earliest surveying instrument: the plumb board, the A-Level and plumb square."

There are numerous examples in **Egyptian** artwork of the plumb bob in action. (pictured above) Egyptian illustration of a "plumb board" and "A-level", both rather sophisticated advancements in the use of the basic line and plumb bob.

(pictures, "weighing of the heart") Egyptian ceremony depicting "scales". A plumb bob hung on three strings!

I will write about this illustration in a later issue.

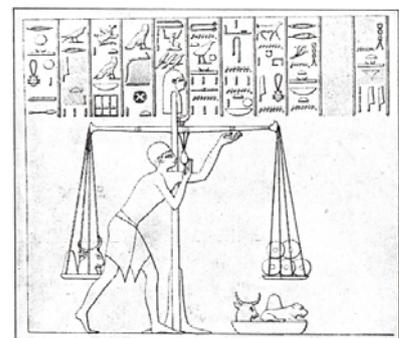
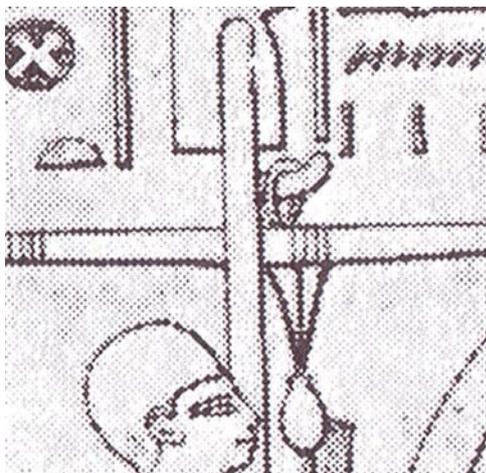
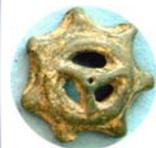


Abb. 48. Abwiegen mit Goldringen.
Der Mann beobachtet, ob die Wage einspielt. Gleichgewicht ist vorhanden, wenn die drei Säulen, an denen das Sentgewicht von der Mitte des magneten Hängehaltens herabhängt, sämtlich gespannt sind. Ist ein Säulen lose, so ist die Wage nicht im Gleichgewicht. 18. Dynastie (um 1550 v. Chr.).
Aus Gräbern von Abd el Guma, Theben.





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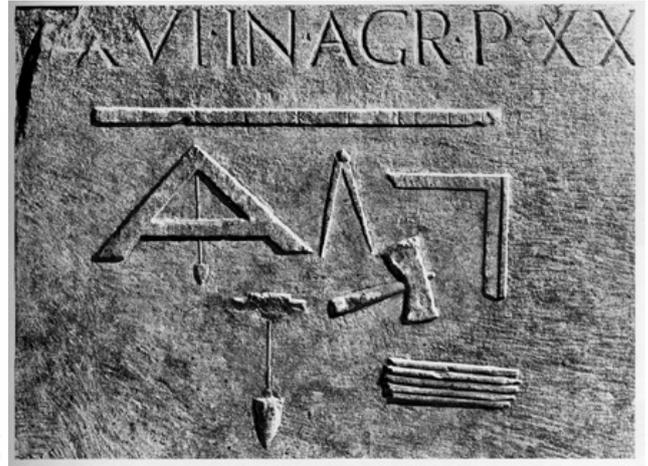
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Other sources mention **Mesopotamia** (located between the rivers Euphrates and Tigris, today Iraq) as the beginning of plumb bob history. Perhaps we will never know who was the first. It is fair to assume, I think, that early cultures that build structures of any magnitude, employed plumb bobs and plumb lines in their basic arsenal of tools.

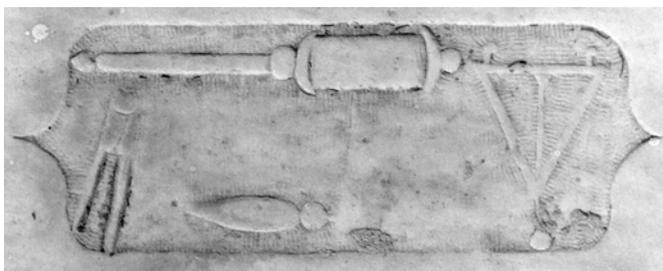
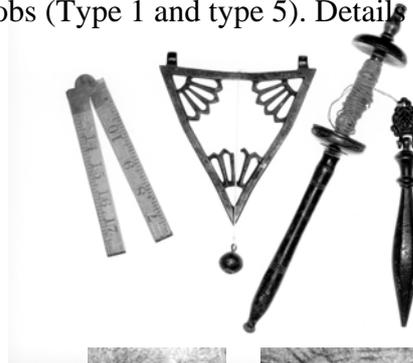
It is often hard to find the tiny plumb bob in these old pictures.



Tools from a mason: ALEXANDRIA, Cleopatra Obelisk, and MARKUS AEBTIUS, Rome

Roman images of plumb bobs are frequently found carved out of stone in bas relief. (See also "The Plumb Line", Cynar, "Plumb Bob As A Symbol")

From Elias Zachoropoulos in Athens I got the pictures of a CORNER STONE and a TOMB STONE (1811) in **Greece** with Ottoman plumb bobs (Type 1 and type 5). Details in the article about Ottoman plumb bobs in a later issue.





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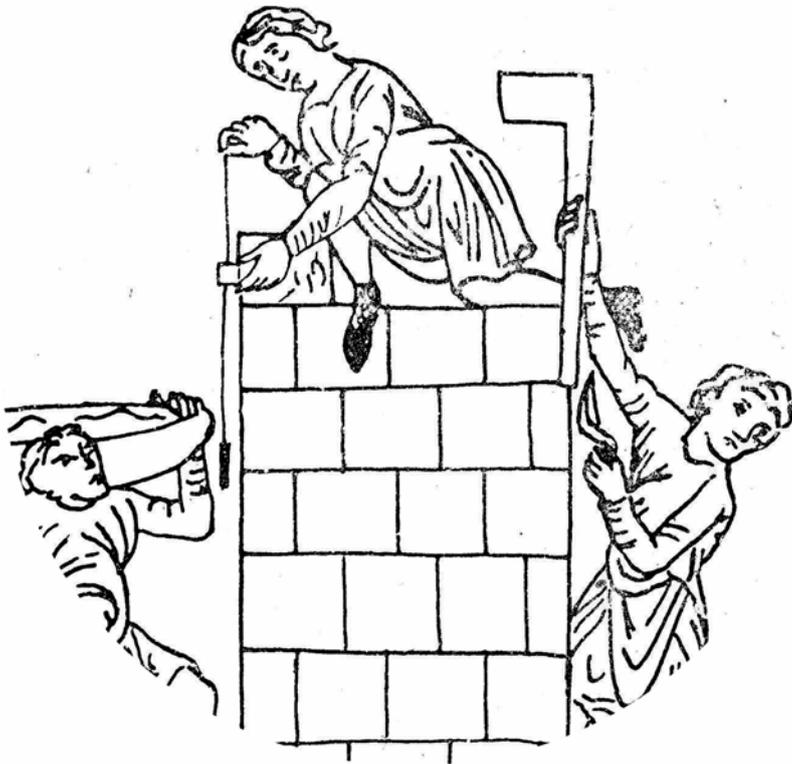
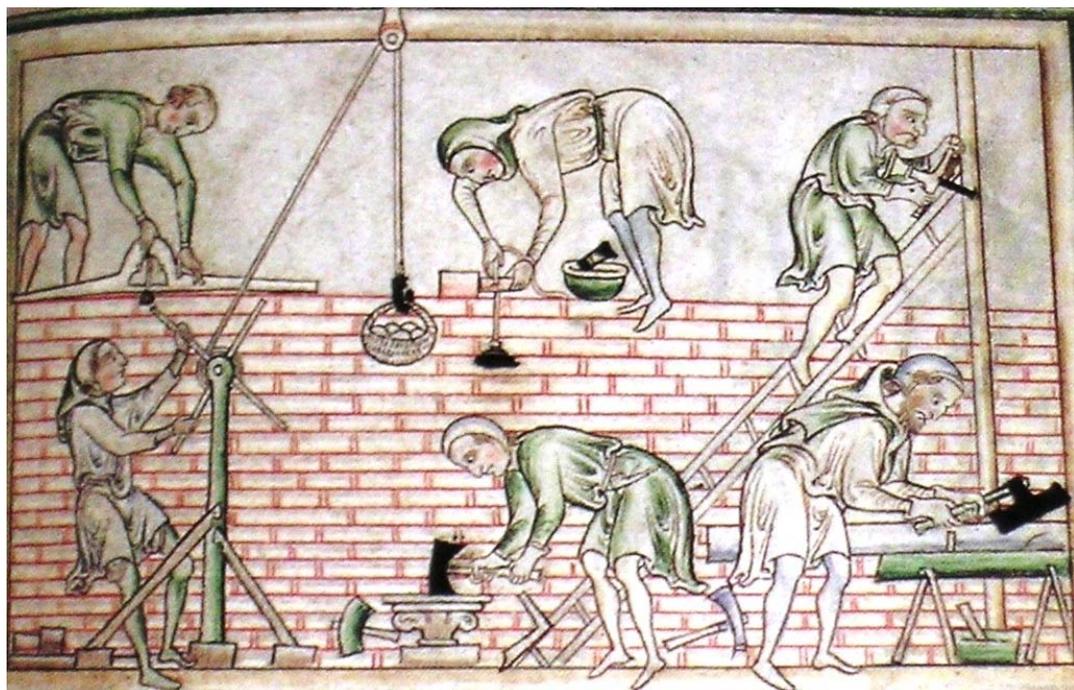


Bild 8.

HORTUS DELICIASUM (France, 1180) Depiction of masons working with tools of their trade including a plumb bob. Note the use of a spacer, a common to French and Dutch stone and brick masons.

We find similar work in a picture about the visit of Oisa de Mercier in St. Alban, **England** in 1250. Plumb level and plumb bob are used to “plumb” the wall.





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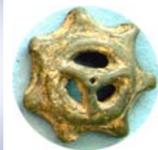
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A **German** freemason with a statute-book „Die siegende Wahrheit“ and his tools:



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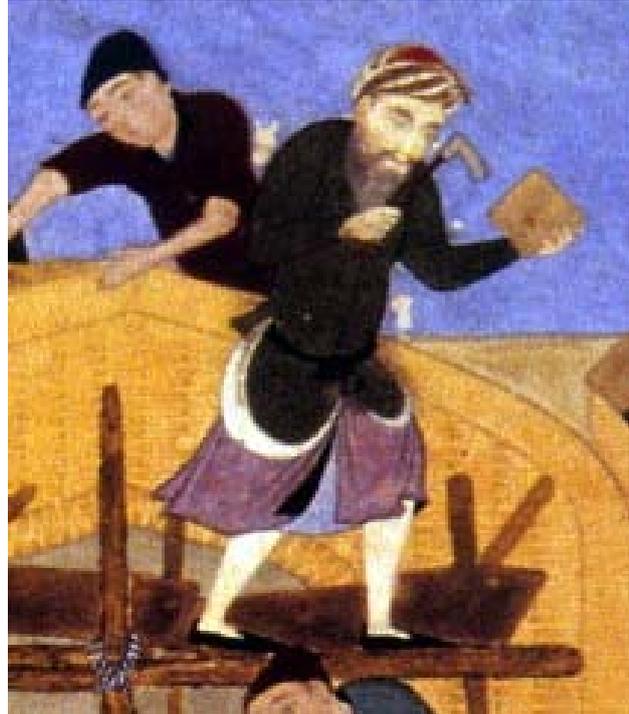
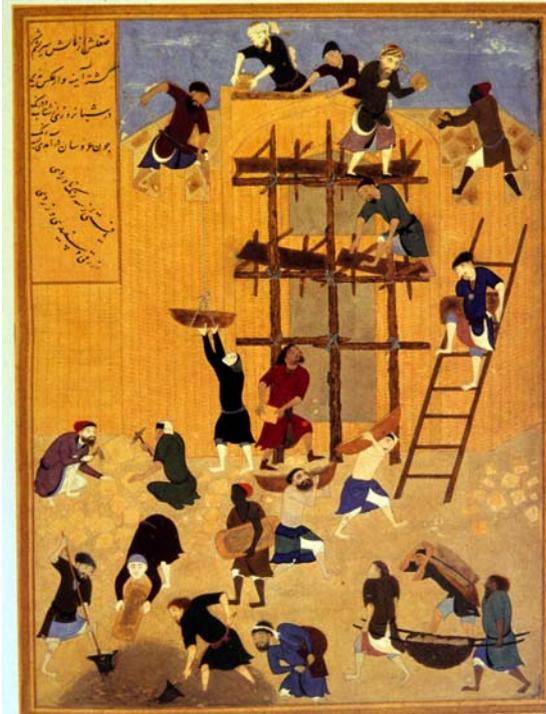


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In the British Museum, London, the well known, "Building the Castle Khawarnaq", HERAT, PERSIA, 1494. The architect is using a plumb bob and line.



These pictures illustrate the building of cathedrals and castles. Because these buildings were massive stone structures of extreme height and span they had to be built exactly to stand up to the test of time. On the cover of the German and American editions of Ken Follet's book, „The Pillars of the Earth“, masons building a cathedral in the 12th century.





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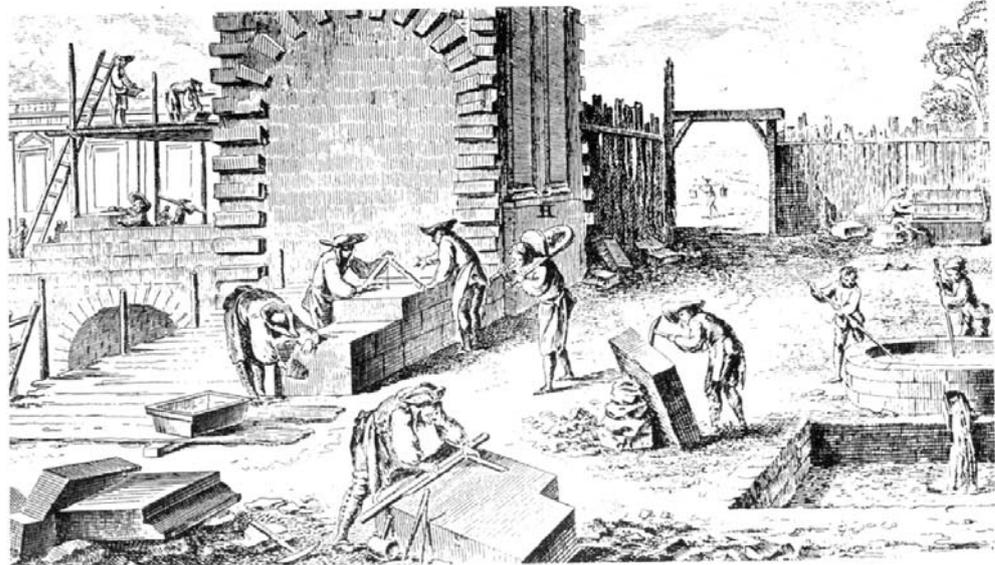


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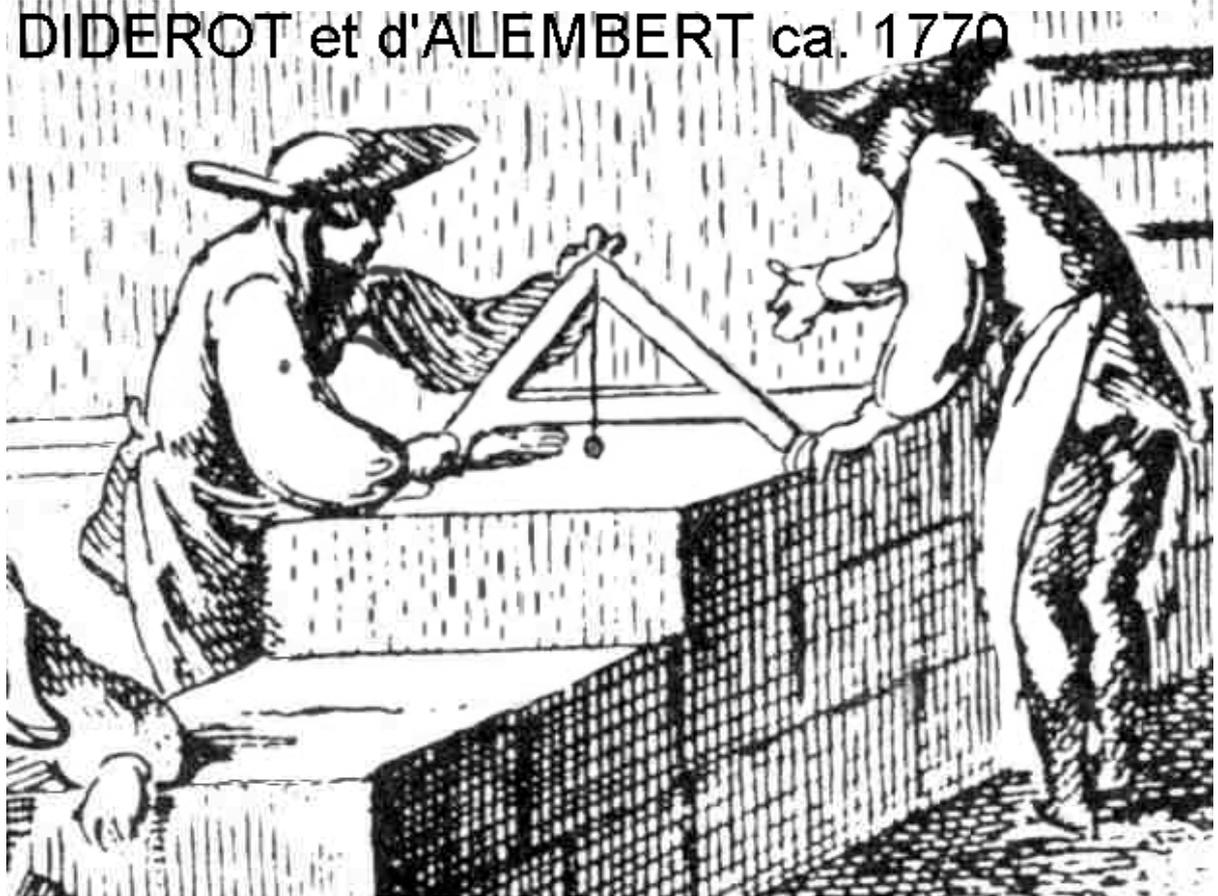
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In French books of DIDEROT and D'ALEMBERT 1770 we see the use of a plumb level.



Maurer auf der Baustelle
(Kupferstich aus Diderot et d'Alembert „Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers“, Paris 1751—1772)

DIDEROT et d'ALEMBERT ca. 1770





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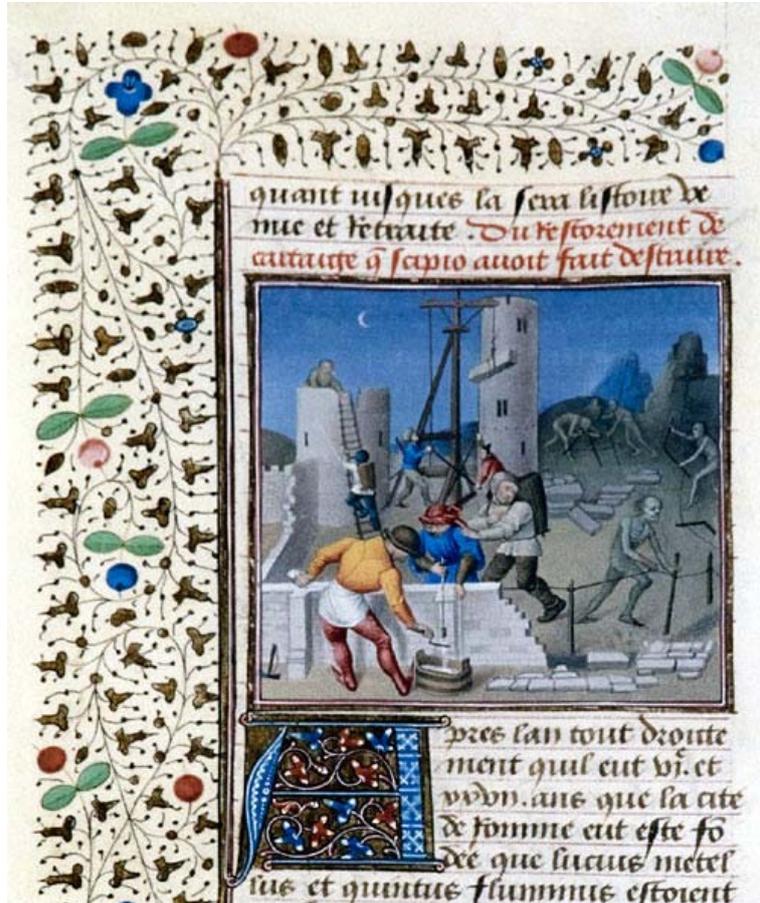
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The pictures are not only interesting from a technical point of view, they are fine examples of the jubilant style of "illuminated" manuscripts.

Building a cathedral,
"Reconstruction of Carthago,"
Paris.





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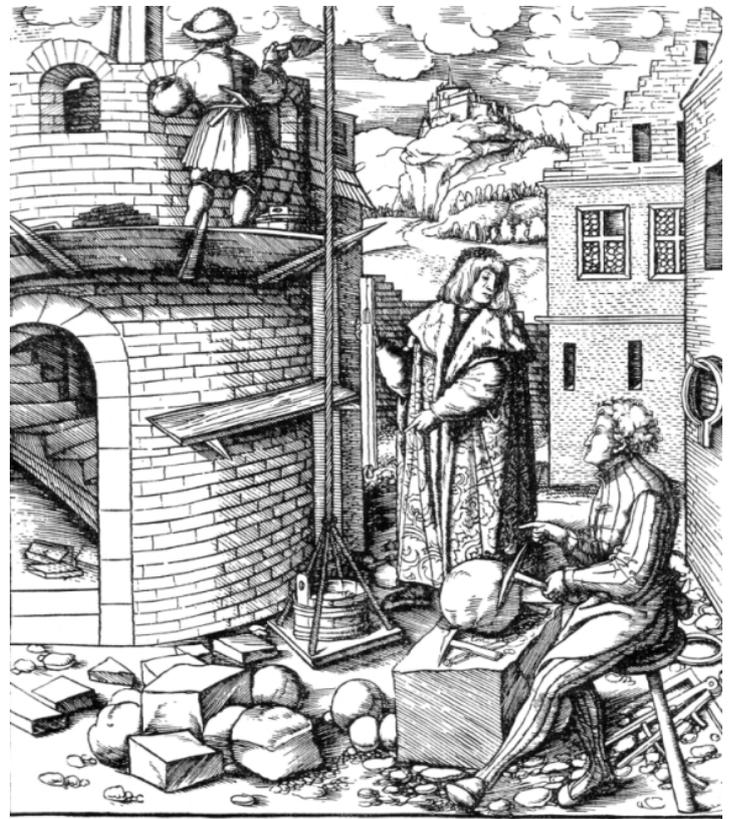


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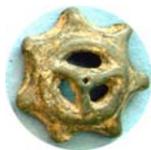
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Building a tower in Flandern / **Belgium** in the 15th century. Another interesting use of the spacer!



Picture from 1515 showing a “plumb board” or “plumb level”. (See also last page)



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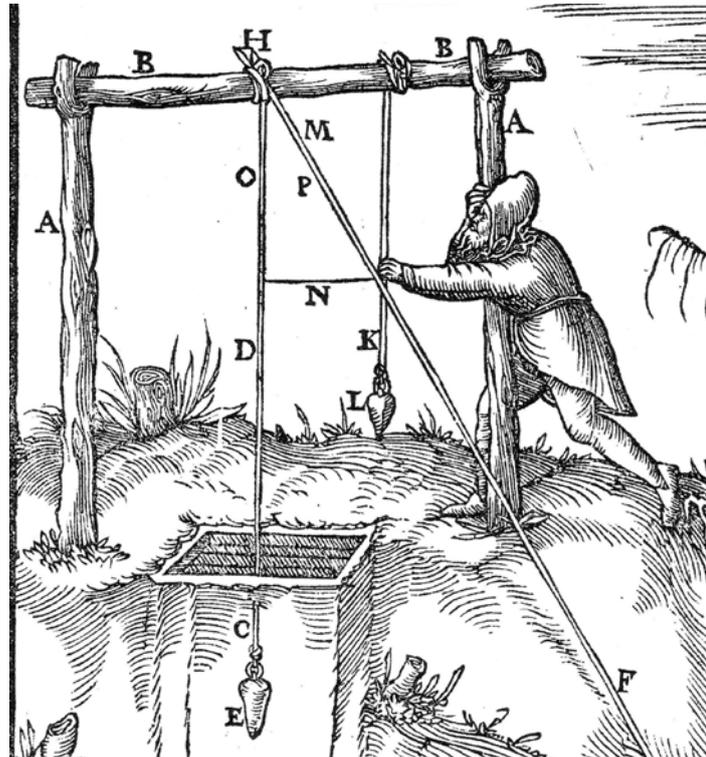
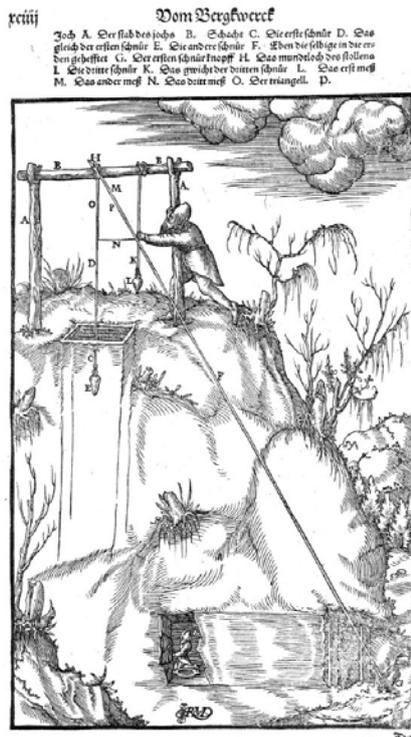


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From Georg Agricola ,1557, **Germany**, „12 Books About Mining“:
A miner calculates the depth of the mine shaft and tunnel by using two plumb bobs.
An illustration for teaching the geometry and mathematics of this type of work.



In school books, masons using their tools.





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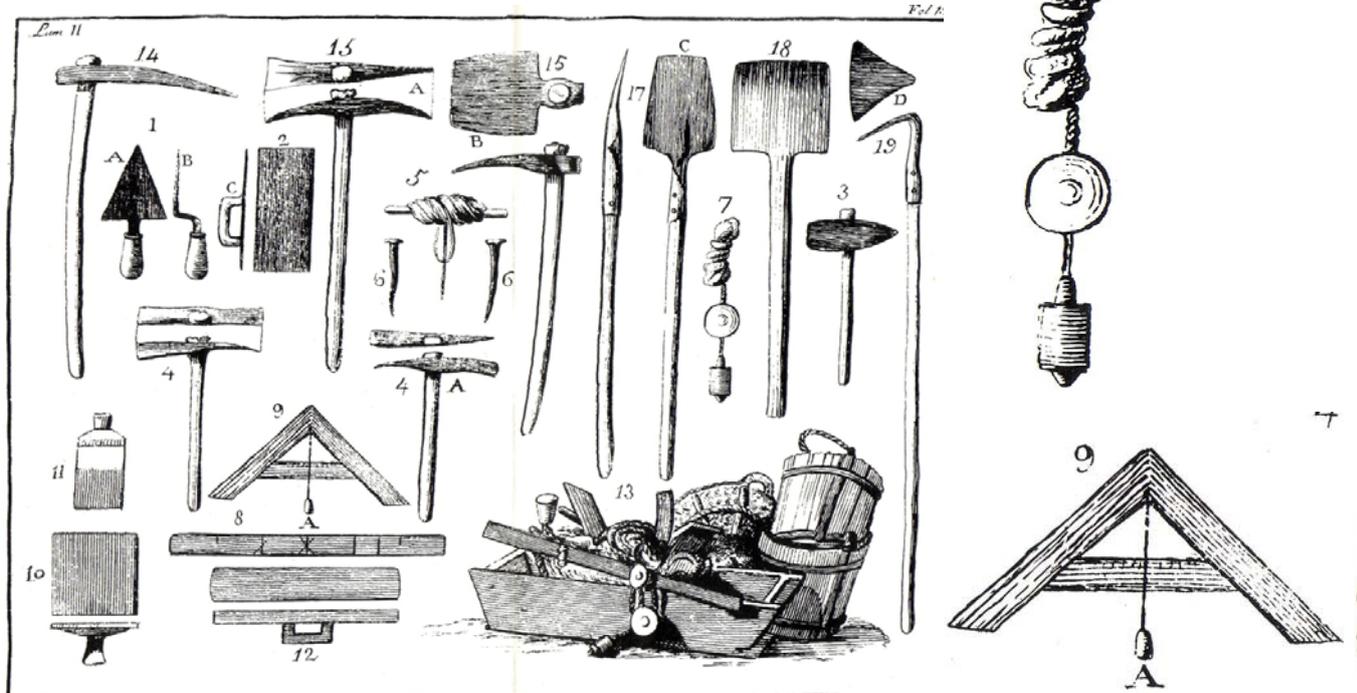


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A discovery from **Spain**, some fine line drawings of the plumb bob and the plumb level, illustrations in, „ARTE DE ALBANILERIA, 1827”



Here we find a uniquely imaginative use of the plumb bob, a “divining tool” found useful by Satin. It was sent by a **German** friend, copied from a Sunday Newspaper. The original is from August the Strong, 1670-1730, one of a collection of copper engravings. This one is titled, “Satyr With Plumb Bob and Nymph”, an engraving by the Italian artist Agostino Carracci *15.8. 1557 in Bologna, † 23.2. 1602 in Parma. In the www you will find the picture: <http://narzil.tfcentral.com/satpic2b.html> Image 7

To be accurate I think this depiction illustrates a pendulum, not actually a plumb bob. Personally, my experience with this kind of work, leaves my hands a bit shaky; my bob never seems to come to rest. However, I would encourage my readers to experiment with plumb bobs in this way and to report their experiences and illustrate their findings for inclusion in an upcoming newsletter.☺.....





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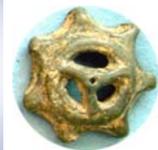
Plumb bobs even find a place in religious manuscripts. This was sent me by Georg; thank you!

At first glance I thought that this was an angel pulling a bell rope! As you can see, however, we have the letter "A" as in "A level", or "Apple", or "Angel", or "Anatomically correct Angel." Somewhat curiously, a plumb line and bob hangs from its apex, a religious symbol of rectitude, perhaps.



English tradesmen with their measuring and drawing instruments. Note the "plumb level" and "A level" in the center foreground"





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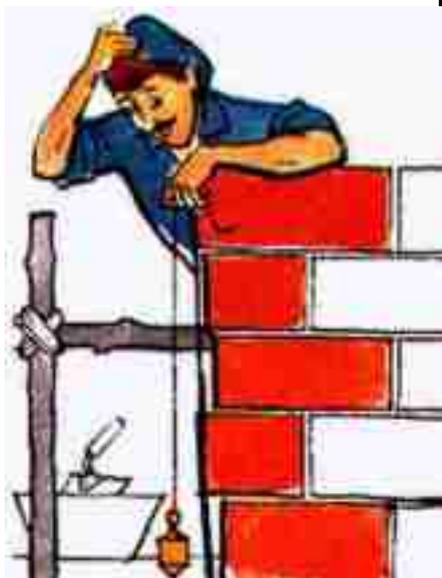
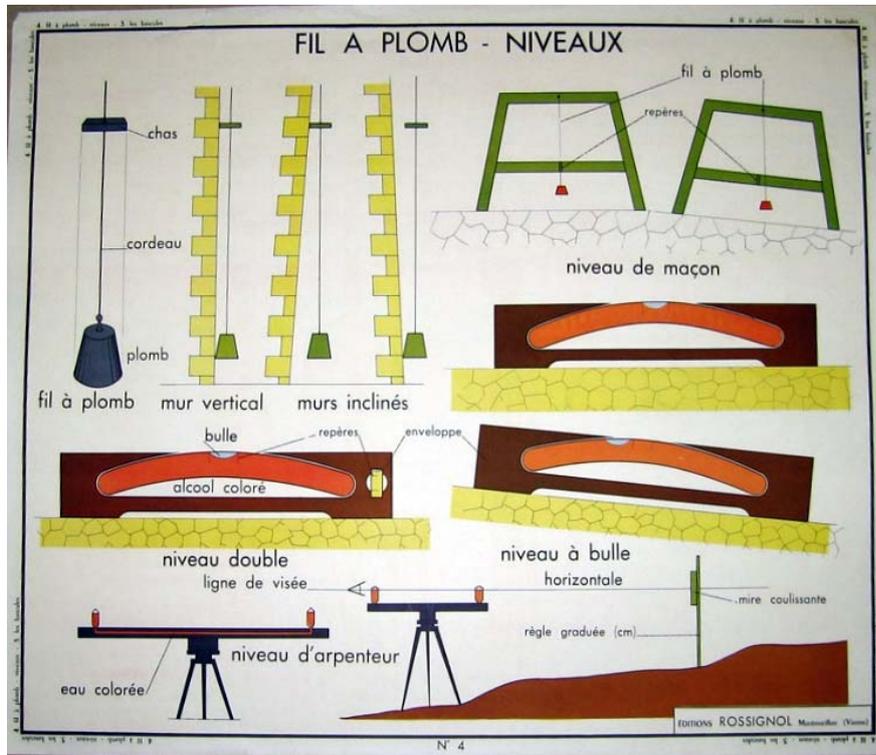


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From **France** I found this illustration, apparently used to teach the use of the plumb bob.



A more curious find, plumb bobs printed on a sheet of blotting paper.



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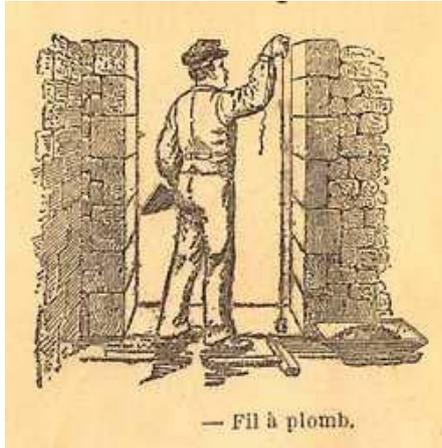
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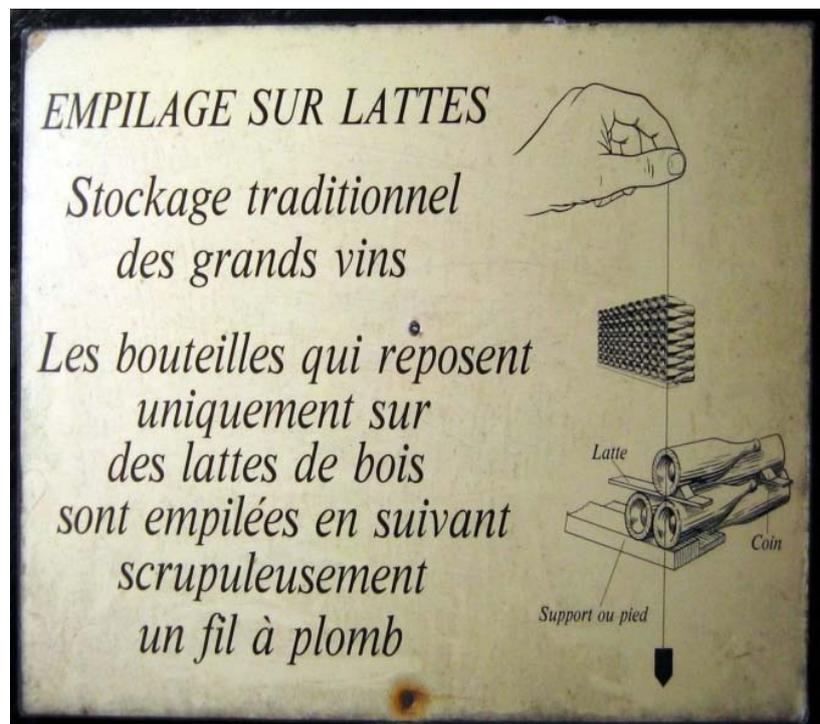
The common use of the **French** mason plumb bob with the typical spacer, two engravings from France.



collection Wolfgang Ruecker

From the son of Riccardo Chetoni, a Structural Engineer, found while working in a French wine-cellar, instructions for using the plumb bob, “scrupuleusement”, to check the alignment of “pillars” of wine bottles. In Europe, we take our wine seriously! We also wonder if there was some sampling of those bottles during the course of his search. The full story is yet to be told!

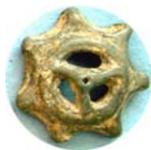
A votre santé!





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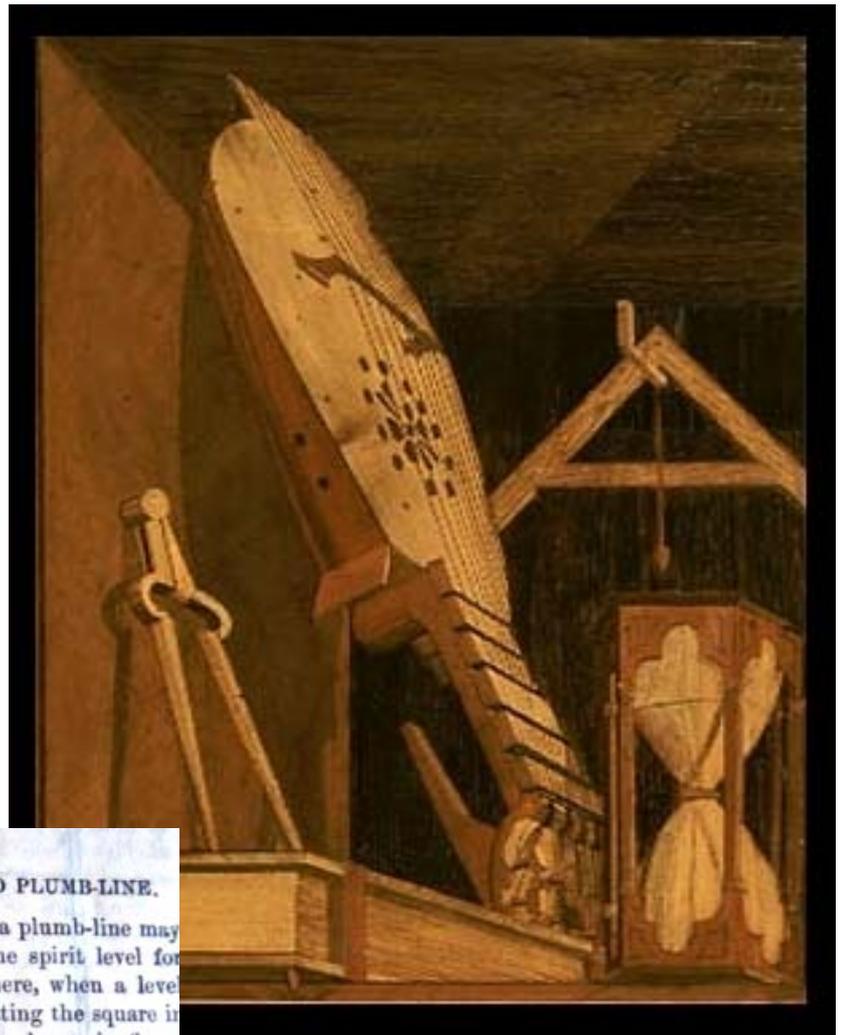
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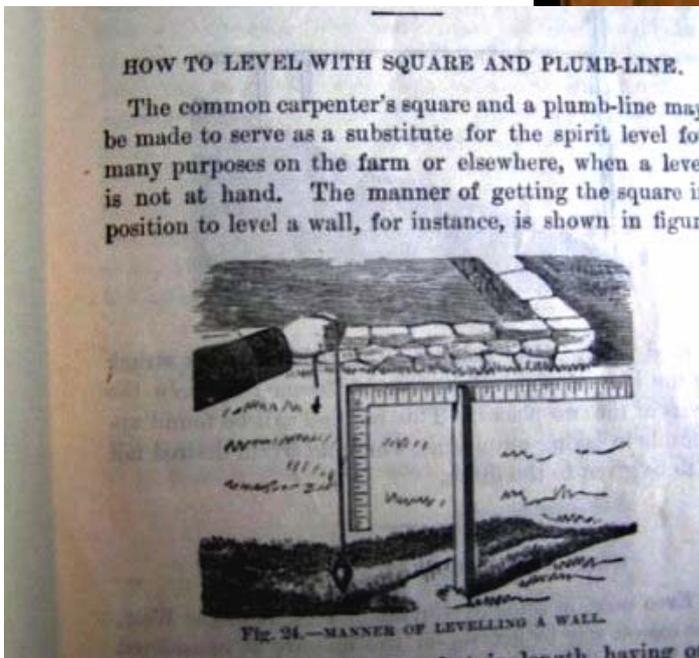


The greatest scientists are often pictured with their essential tools.

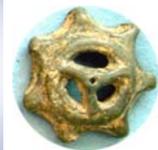
Gabriel de Gabrieli 1671 1747 Eichstaett Deutschland
Hofbaudirektor and



Giuliano Da Majano intarsia 1479-82
Italy Ducal Palace Gubbio



From 1909, instructions on the use of the plumb bob, plumb line, and square to determine a horizontal line or plane



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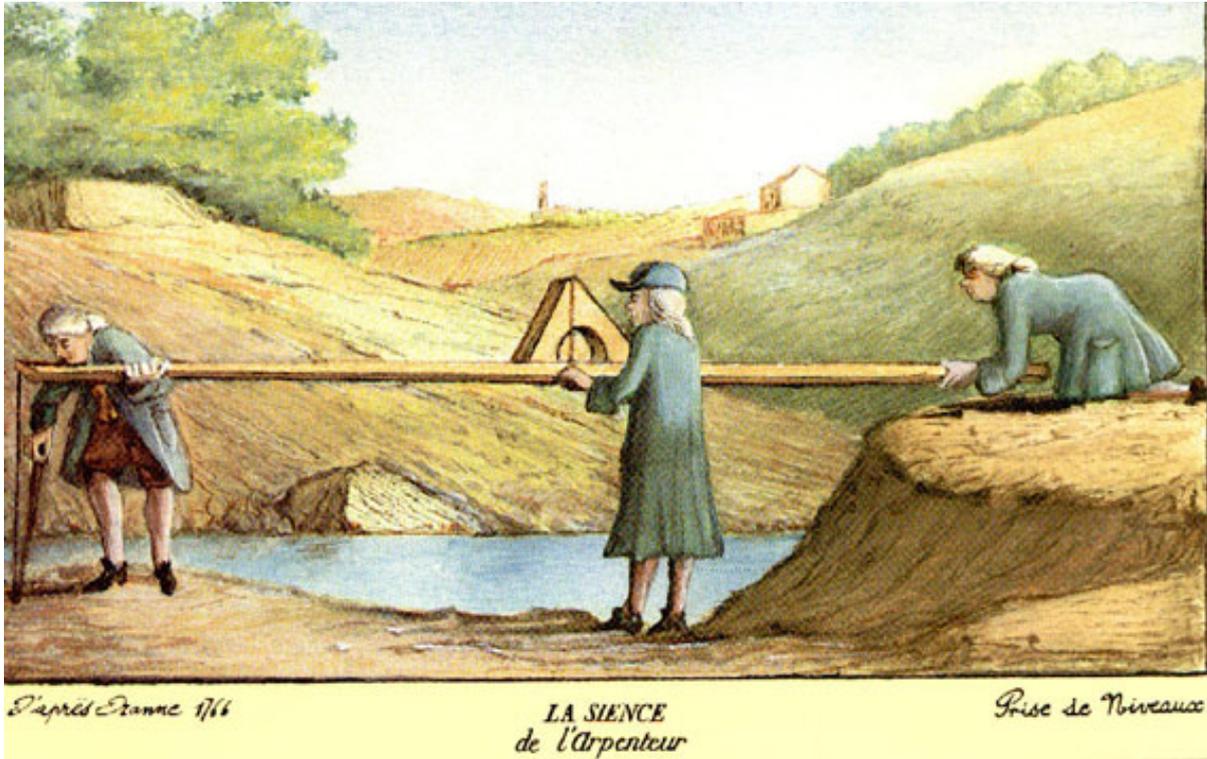


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French surveyors working with a plumb level, 1766. Their white stockings, frock coats and wigs speak of the status of the surveying trade. Can you just see them falling into the stream?



Some years ago I found this illustration of surveyors in the Middle Ages in a book from Bertrand BOYSSET, Arles France, 1355-1415. (www-site, unfortunately is no longer available ☹) The pictures depict instructions as to how to correct broken boundary-stones or landmarks. Look closely. It might be considered to be a very expensive way to go about doing a simple task.





WR PLUMB BOB NEWS

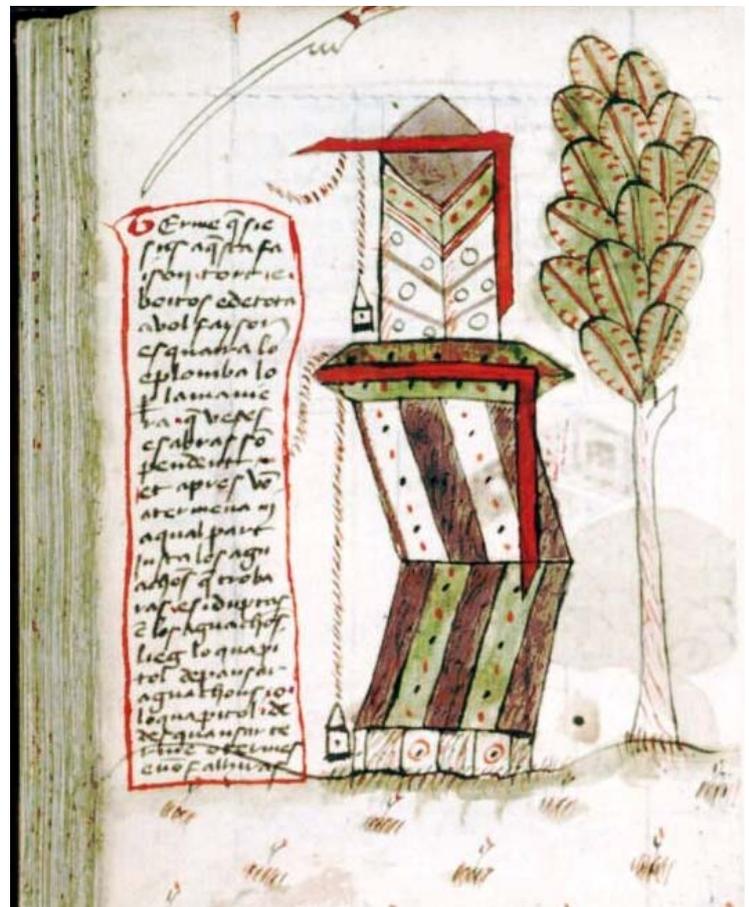
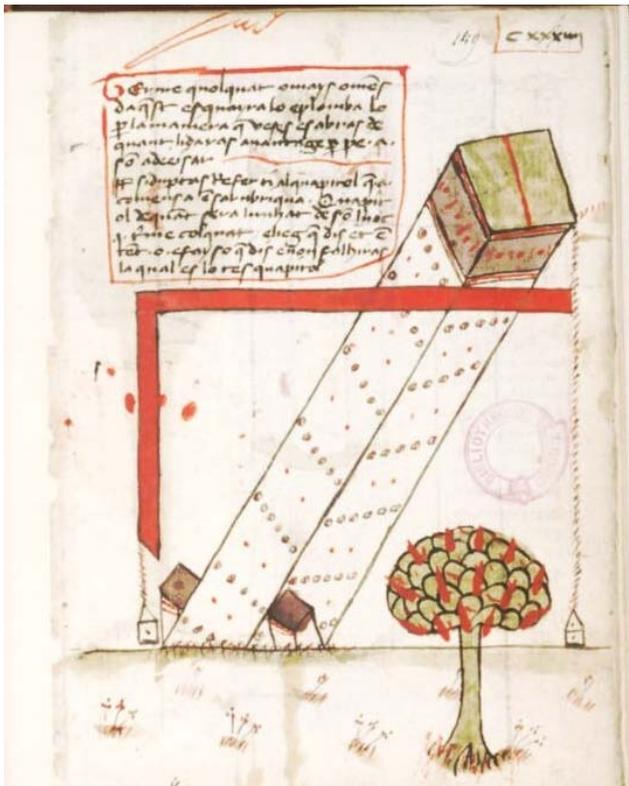
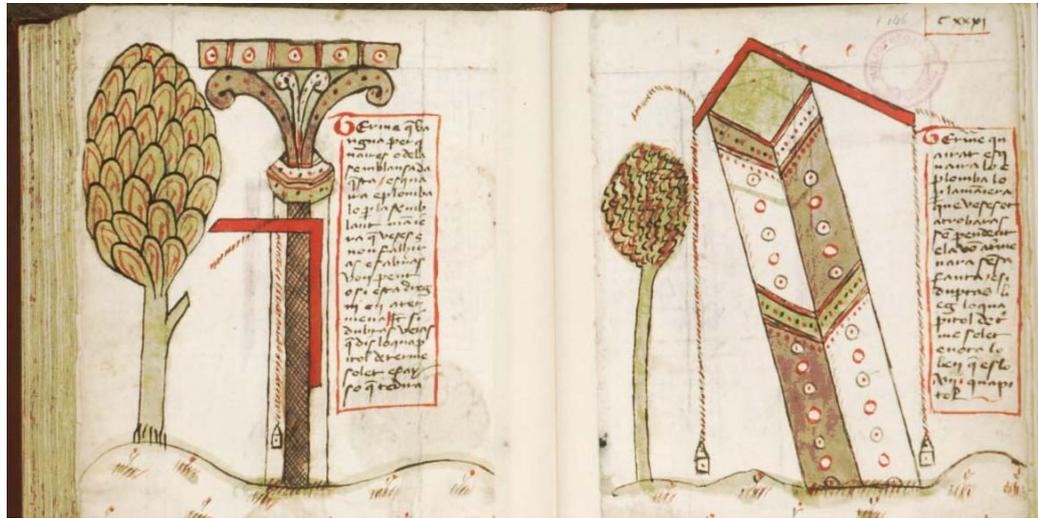
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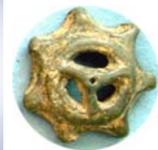


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And at last, I found a **German** example from the Middle Ages, colourful picture, an inclinometer with plumb bob.

Heinrich von Mügeln „Der Meide Kranz“ (um 1360) Astronomia



And, arriving just in the nick of time to make it into this newsletter, a cabinet photo from the state of Wisconsin in **United States**, c. 1900. Two American masons holding trowels and a very long plumb board of nearly 4 feet! These boys, not only cow boys, really built the wild west.

I am glad that I could put together this collection of pictures showing the USE OF PLUMB BOBS.

Thank you to all the Fellow Collectors who sent me pictures and information.

DO YOU HAVE ALSO SOME PICTURES FOR ME ???

