

WR PLUMB BOB NEWS

Information for plumb bob collectors

Issue # 2008-06

Apr. 21, 2008



Edited by Wolfgang Ruecker

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GERMAN PLUMB BOBS

In 2007 the entire focus of my Newsletters was on American patented plumb bobs. In this issue I would like to direct my attention to my homeland, Germany, and our unique contribution to the world of plumb bobs.

The outstanding examples of German plumb bobs is a study in contrasts between 19th and 20th century examples. In the 1820's we have some noted examples from the city of Hamburg that proliferated as a distinctive German style, disappearing after the First World War. Within the same time frame from 1878 and into the twentieth century we have two German immigrants to the state of Missouri in the mid-west United States, Paul Leistner and J. O. Heimbach. These early examples speak of the German tradition for training artisans in the highest levels of the metal working craft and artistry.

In contrast, we will see in the examples of twentieth century production from WWI on a noted shift in emphasis in plumb bob production to the economical mass production of a commodity to be marketed in a world wide arena of trade. As you will see, the physical shapes of plumb bobs reflects the demands of Germany's partners in trade, simple utilitarian tools cast, then machined, from lead and iron. Brass appears to disappear as a material of choice in the production of bobs, thus simplifying the number for pieces required to make a durable point on pointed plumb bobs.

THE "HAMBURG STYLE"

The "Hamburg Bobs" as I will call them, first came to my attention in the famous book, "Die Werkzeuge des Zimmermanns." (Tools of the Carpenters) written by the noted tool collector from Hannover, Hans Tewes Schadwinkel.



Fig. 1. Brass from Hamburg with engraved year.
Collection of H. T. Schadwinkel



HAMBURG



Fig. 2. Signet of Hamburg and mark of two plumb bobs.



Fig. 3. Collection
H. T. Schadwinkel

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This published example displays a collector's treasure trove of features, a definitive 1825 date mark and the sign of the city of Hamburg, a crenellated city gate topped with three fortifying towers. (Figures. 1, 2, 3)

(Nelson Denny)" *The first of these bobs that came into my hands and been sold through David Stanley in England some 13 years ago into the collection of the noted tool dealer in Australia, Hans Bruner. Then in 2004, the item appeared in a Martin Donnelly auction in New Hampshire. In each transaction, the auction description text ascribed the "cartouche" (maker's mark) as the medieval symbol of "the holy trinity," most often depicted as three "divine figures" standing atop a wall, or behind a table. If you study the symbol it is not too far fetched to see three towers as three human figures. However there was no plausible reason why such a religious symbol would appear on a plumb bob. To my great benefit, Wolfgang, recognized a much more persuasive identification in the Schadwinkel text. Since then, I have discovered two additional examples."*

Other excellent examples of this decorated type are these three "HAMBURG" plumb bobs in the collection of Nelson Denny that helps to define the characteristics of the "Hamburg Style." (Figure 4).

- 1.) All examples share a rather upright shape, stacking bands of coves, rims, bulbs and drums around a central axis. Note the individualized embellishments of shape and decoration as interpreted by different craftsmen. (Figure 4)
- 2.) All bear the "hallmark" of the Hamburg Gate, struck in a variety of styles, yet all recognizable as the same symbol. (Figure 5) Note also, in this particular example, the extraordinary time, creativity and skill required to fashion and decorate the tool.



Fig. 4. From the collection of Nelson Denny.



Fig. 5. Hallmark.Hamburg from Coll. N.D.

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- 3.) They all share the characteristic of having reversible tips. This is a refinement in construction that not only saves the worker's pocket or tool apron from damage but also preserves the very pointed tip for use in highly precise work. (Figure 6)



Fig. 6. Screw + Reversible tip

A tradition of this same general form and decoration was to last into the early Twentieth Century as illustrated in this Catalogue from Berghaus 1913 (Figures 7, 8 + 9).

Nr. 168

Preis-Liste
von
R. BERGHAUS
BERLIN O. 27

ALEXANDER-STRASSE 22



GROSSHANDLUNG
in
EISEN-STAHL-UND MESSINGWAREN

FERNSPRECHER: AMT ALEXANDER NR 2006, 2007, 2008, 2009.

Frühjahr 1913

Die vorliegende Liste enthält mit Preisliste Nr. 167, September 1912, eine vollständige Uebersicht der von mir geführten Artikel.

Fig. 9. BERGHAUS 1913



4010

Fig. 8. From catalogue BERGHAUS 1913



Fig. 7. Brass 1913 reversible tip.

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LEISTNER AND HEIMBACH

Dear Wolfgang and Fellow Collectors,

*Leistner and Heimbach have been an ongoing research project of mine for many years now. The following short essay is a synopsis of this work. **I would love to communicate with anyone with information on this topic.***

Nelson Denny

Two Germans, PAUL LEISTNER and J.O: HEIMBACH immigrated in the late 1870's to the American Mid-West, St. Charles, Missouri. Wolfgang managed to find confirmation in the church book of Falkenstein/ Germany, that this branch of the Leistner family originated there.

Paul Leistner's census and immigration records show him arriving in St. Charles in 1879 at the age of 21. Most apparent in his almost immediate success in the United States is that he came with a high level of skills and business sense learned in Germany. Paul marries in 1881, Martha Berger from Neustadt who immigrated in the same year. It is unclear if they met in Germany. By 1892 they have three boys and two girls, who all reside with their mother and father, until Paul's death in 1916. The three sons Oscar, Erich and Paul J., carry on the family business well into the 20th century. After 1917 the business becomes, "Paul Leistner Sons."



Fig. 10. From the German emigrant LEISTNER

48 oz and 17 oz

Paul Leistner and his sons were known as "decorative ironworkers." Paul's main claim to fame was in a patent for a brass "footwarmer" and a steel framed chair known as a "glider."

On some scale of production, during Paul Seniors early years, he made and marketed plumb bobs in his own mail order catalogue, the first plumb bobs to be identified with a manufactures name in the United States. Most common were his "Millwright, Reversible Plumb Bobs." (Figure 10) They were made in a range of 6 different sizes (Figure 11) that can be identified by their distinctive caps. (Figure 12)



Fig. 11. LEISTNER complete set of 6. Collection N. D.

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Sadly, J.O.Heimbach's plumb bobs are more difficult to identify, and no reference has yet to be found to the detail's of his life. At least one of his styles is quite similar to the "Millwright Reversible", paralleling the 6 sizes, made by Leistner. (Figure 13) Unlike Leistner who created "name recognition" for his company by putting his name in easily readable letters on the cap, Heimbach sometimes inscribed, "J.O. Heimbach," in very small lettering on the steel shaft, (barely readable if the bob is disassembled). Where Heimbach wood shipping boxes survive along with the bob, the Heimbach name is stamped with ink on the underside of the sliding box top. Sometimes his name appears in St. Charles and sometimes associated with St. Louis. When these two means of recognising a Heimbach fail, the cap pretty much tells the story. Note both the similarities and differences of these beautifully machined caps, Leistner on the left, and Heimbach on the right (Figure 14)

Although Leistner and Heimbach in some sense mass produced these Millwright Bobs they were probably produced in fairly limited production runs. Note in this detail of a Heimbach cap, (Figure 15) the intricate and labour intensive machining that is involved in the production of this one piece!



Fig. 12. LEISTNER mark on the top



Fig. 13. HEIMBACH reversible plumb bob



Fig. 14. caps of Leister (left) and Heimbach (right)



Fig. 15. HEIMBACH cap

There is one known example of Heimbach's "Millwright Reversible" in a box with an inked label reading, "REAL BRONZE, PLUMB BOB, MADE BY,LEISTNER & HEIMBACH. ST. CHARLES, MO., 3-LB, MILLWRIGHT REVERSIBLE". This is the only reference I know of that puts Paul Leistner and J.O.Heimbach working together.

Thanks to Nelson for this additional information!

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German manufactured plumb bobs after the 1st World War:

Germans are well known as craftsman, and manufacturing genius's who have been engaging in worldwide marketing of our products for centuries. German factories have engaged in making plumb bobs in the shape that the "client" wants and continue to do so to this day.

(Figure 16) From a 1924 catalogue of the Gampper factory, manufacturers of plumb bobs (Senklote) since 1890, all the common shapes of the world are represented excepting American, Ottoman, and Asia shapes.

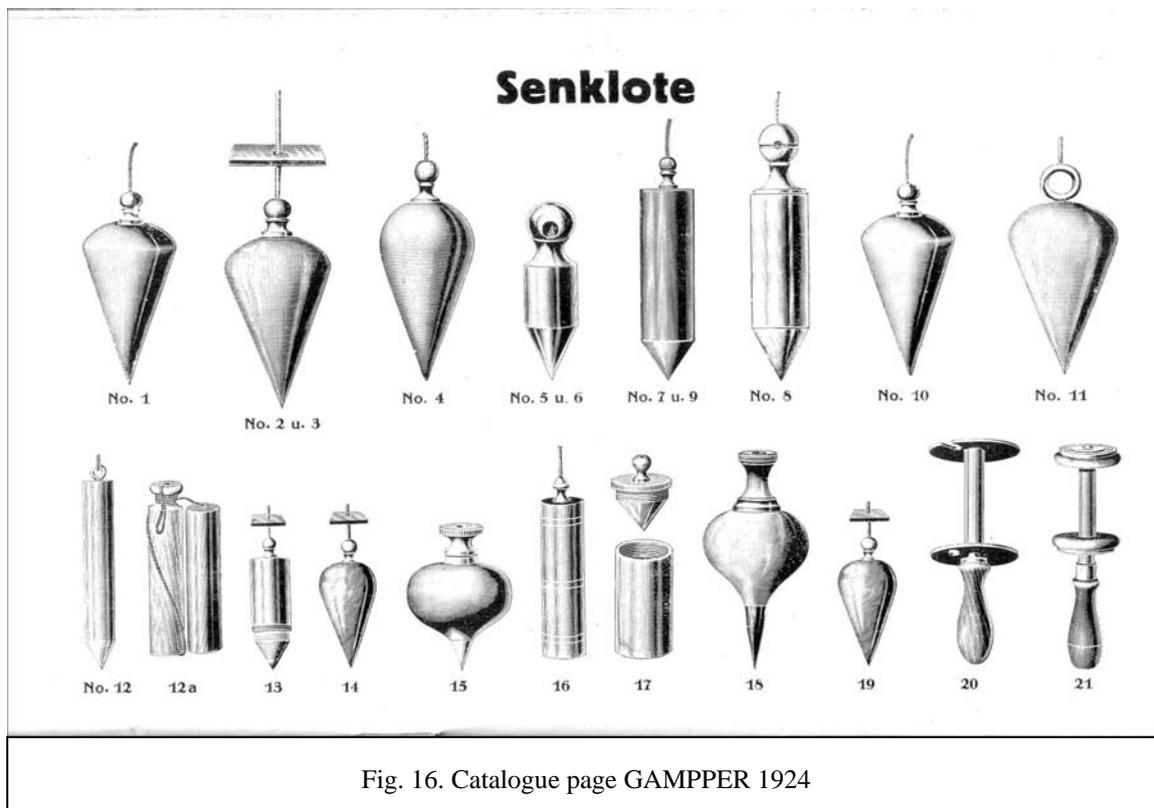


Fig. 16. Catalogue page GAMPPER 1924

(Figure 17) A complete years worth of shipping records from the Gampper factory, from the railroad depot of Murrhardt in the year 1930, gives a very clear and comprehensive view of this factory's production. Since all deliveries were made by rail (Lorries used after 1945) this book gives an excellent picture of plumb bob production. 16.800 Kilogramm per year comprising nearly 80.000 individual bobs, with an average weight of 200 Gramm per bob. 395 crates, 70% addressed to German customers and 30% sold abroad.

The image shows a page from a shipping book from 1930. It contains a table with columns for date, quantity, destination, and weight. The table is filled with handwritten entries. There are four purple stamps on the right side of the page, each reading "Murrhardt 29 29136 W 30.8.20-233-1".

No.	Ordnung								
11	11	11	11	11	11	11	11	11	11
12	12	12	12	12	12	12	12	12	12
13	13	13	13	13	13	13	13	13	13
14	14	14	14	14	14	14	14	14	14
15	15	15	15	15	15	15	15	15	15
16	16	16	16	16	16	16	16	16	16
17	17	17	17	17	17	17	17	17	17
18	18	18	18	18	18	18	18	18	18
19	19	19	19	19	19	19	19	19	19
20	20	20	20	20	20	20	20	20	20
21	21	21	21	21	21	21	21	21	21

Fig. 17. Shipping book from GAMPPER 1930

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Of the overseas shipments, the destination addresses included Java, Netherlands, Ghana, Mexico, Sweden, Argentina, Burma, United States, South America, the Phillipines and Colombia. These transactions were made to wholesalers who distributed the products in local markets. To certain countries, such as Australia and New Zealand, sales were made through agents at Remscheid (center of tool industry, i.e. Henry BOKER and others.) Such shipping books are a very good source to get specific information of this factory's production.

A list of German factories known for their plumb bobs:

- GAMPPER (since c. 1890 – now) Murrhardt / Stuttgart, later Alsenz
- MASSI Reichenbach / Vogtland
- HOMMEL Mannheim
- HARHAUS, BETLZER, HELDMANN, KASTNER, KLITSCH, SCHRÖDER (all Remscheid)
- LEISTNER Leipzig (No connection found to Leistner USA ☹)
- etc.

Most of these factories offered a very limited array of different shapes (Figure 18). GAMPPER was singular in their marketing and manufacturing for a worldwide market (Figures 16, 19 +20)

Materials were most commonly IRON and CAST IRON, and to a lesser extent STEEL. Brass was not as common a material.

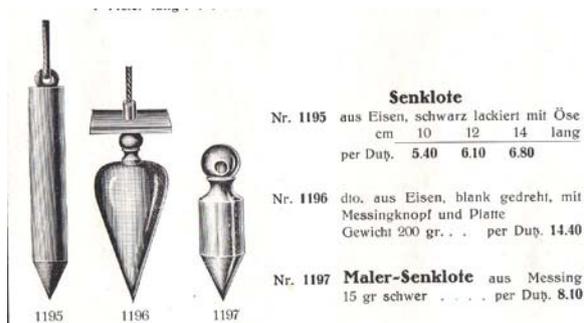
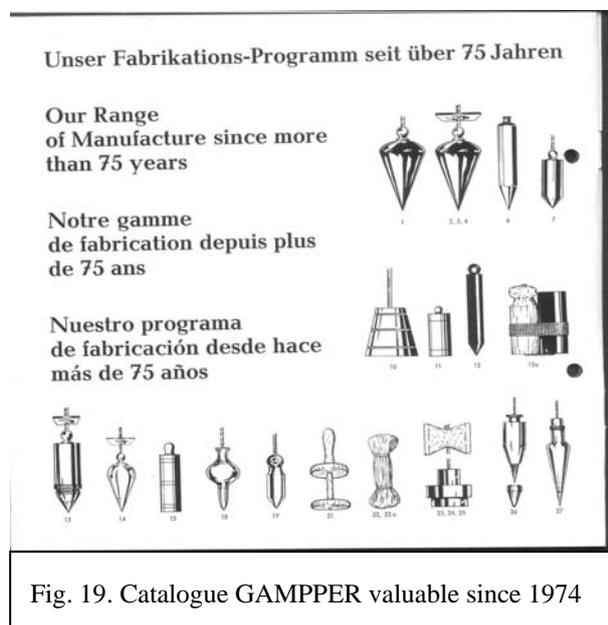


Fig. 18. Catalogue WICK 1925

Searching through manufacturer's catalogues it is interesting to note that there are many more dealers than there were factories to produce them. Since the pictures used in the catalogues were made by the manufacturer, you see the same illustrations repeated many times over in dealer's catalogues.



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Gammer never marked with his own name, but with the client's logo (Figure 21). See WR Plumb Bob News 2008-01

Here are some of the marks. I made a photo directly from the marker and than I turned the photo left to right. So you can better see the mark.



What SHAPES were used in GERMANY (after 1800) ?

CONE (Figure 22)

This is a simple shape that lends itself to industrial production.

Conveniently, it embodies symmetry, a sharp tip, is simple and inexpensive to produce, and good to handle. It can be formed by simple production steps. The cone was made by casting and trimming the shape to precision tolerances or by turning on a lathe from a cylindrical rod. The waste shavings were re-melted, recycled in the on-going manufacturing process.

The earliest bobs were cast in lead because it was relatively easy to achieve the temperature to melt lead and pour it into a mold. It is a material, however, due to its softness that does not lend itself to holding a point. To add a harder tip by iron / steel was expensive. In Germany, removable tips were not a common design element. Rather, one piece bodies in iron became the acceptable solution to the problem of durability.

There are many variations to the shape of the simple CONE. These variations are all in the “shoulder” of the bob, the transition from the geometric cone shape to the “cap.”(Figures 23, 24 + 25)

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Fig. 22. 300 Gramm cone STANDARD



Fig. 23. Iron body with different shoulders



Fig. 24. Germany Iron, iron round shoulder, brass and zinc die cast



Fig. 25. Germany: Different shapes / shoulders of iron and cast iron (turned) plumb bobs

See WR Plumb Bob News 2008- 01.

In Germany IRON was used, later CAST IRON trimmed on a lathe. Since 1970 ZINC DIE CAST with an integral steel tip is the common practice. Brass was used not very often, unlike plumb bobs made in England and America.

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Another common shape is the **CYLINDRICAL PLUMB BOB WITH TIP** (Figure 26) OR **FLAT BOTTOM** (Figures 27, 28 + 29) used by masons in Germany and the Netherlands. This type was often used with a rectangular or round wooden spacer. (Figures 26, 27 + 28) The addition of the spacer, threaded thru by the plumb line, allows the user to hold the plumb line a predetermined and uniform distance away from the surface being plumbed. The flat bottoms on this type of bob render them useless in pointing to precise point beneath the plumb line; this function is reserved for plumb bobs with symmetrical points.



Fig. 26. Masons p b with adapted wooden spacer.



Fig. 27. Masons p b with braided line



Fig. 28. Iron flat bottom and round wooden spacer with a rubber bumper.



Fig. 29. Flat bottom brass

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A plumb bob from the **German Democratic Republic of Germany GDR (Deutsche Demokratische Republik DDR)** (Figure 30)

These types have an **interesting marking**.

A **TRIANGLE** with a number **1** inside= means **FIRST QUALITY**

EVP = means Endverbraucher Preis = **PRICE FOR THE CLIENT**. This price was fixed for over 20 years

M or **MDM** = see the information about Germany. (Figures 31 + 32)

Marking **GKÜ** or **GEORG K. KÜHRT ZELLA-MEHLIS**.

Georg Kührt is the factory and Zella-Mehlis is a town in the eastern part of Germany.

Number 32/284/40161 = that is the part number (Figure 33)



Fig. 31. Different currencies.

Material: It seems to be nickel plated or a special aluminum.

This shape is the only one I found "Made in the GDR".

By knowing the abbreviations of the currency you can determine very exactly the year of production.



Fig. 30.
Georg Kührt

Some general information about the estimation of time in **German catalogues**. You can date the catalogues perhaps with the **price/currency**.

DEUTSCHLAND

M, MK= Mark , currency of the Deutsches Reich **1871 to 1924**

GOLDMARK = **10/42 Dollar /USA**) currency for calculation only (equal of 1 Mark before the WWI) during the period of inflation (between 1920 and 1923), was replaced by the Reichsmark in 1924 (Found in catalog WICK and others)

RM= Reichsmark , currency between **1924 to 1948**

DM= Deutsche Mark , (WEST Germany, BRD) German currency after **1948 up to 2001** → (EURO)

In the eastern part of Germany (SBZ= Sowjetisch besetzte Zone) and DDR (Deutsche Demokratische Republik; German Democratic Republic) :

DM= Deutsche Mark **1948 –1963** in the SBZ

MDN= Mark der Deutschen Notenbank **1964 – 1967** (in the DDR)

M, MK, Mark= Mark der DDR **1.1.1968-1991**

DM= Deutsche Mark **1991- 2001**

Fig. 32. Determination of German Plumb Bobs in Catalogues



Fig. 33. Part number

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The PLUMB BOB FOR ARCHITECTS (Figure 34) is also used in France and other countries. They have reversible tips to protect the trouser pocket during transport to the work place. Actually it is the second Standard Plumb Bob in Germany, also used by the Army.

The TILE SETTER'S PLUMB BOB (Figure 35). It is made from a cylindrical brass rod or from powder coated iron. The baked on powder coat protects the surfaces from corrosion. The diameter is small to allow the plumb line to be close to the wall and the tile that was being set.



Fig. 35. Tile setter's brass



Fig. 34. German Army code number

The SURVEYORS PLUMB BOBS are hung from the centerline of a surveying instrument which is, more often than not, mounted on a tripod. This is used to set up the instrument directly over a surveyor's pin, stake, or monument. These examples (Figure 36) of the surveyor's type, have a conveniently shape neck, useful to wind the limited amount of line necessary to hang it from a tripod. Since a surveyor's instrument is moved often in the course of a work day it would have been time saving to keep the string from getting tangled.



Fig. 36. Surveyors plumb bobs powder coated.

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After the two wars in Germany, plumb bobs were made from surplus MUNITIONS (Figure 37). Because the material for new tools was expensive and rare, it was economical to modify the bullets into a tool. (And a better use, I would say) These are not really “born plumb bobs”, but they should be in every collection. I asked the Army for more information. They sent me lists and pictures of bullets and they warned me to modify the bullets with the gun powder inside!



Fig. 37. Plumb bobs built from munitions.

A special German type of plumb bobs is the tiny bob used in the **DECIMAL SCALES** on farms. (Figures 38 + 39)



Fig. 38. Decimal Scale from GARVENS Hannover

Übersicht Formenvielfalt Lote von Dezimalwaagen



W. Rucker

Fig. 39. Collection of small Decimal Scale Bobs

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The „Blitzlot“ (Lightning fast plumb bob), the only “mechanical” German plumb bob of interest, is shown in a catalogue of the dealer REISS in 1914. (Figures 40, 41 + 42). It incorporates a spring driven spool mechanism to allow the plumb line to be retracted onto a spool located in the plumb bob body. Unfortunately, I have yet to find a remaining example or even a photo. ☹



Fig. 41. Cat. REISS 1914 “Blitzlot”

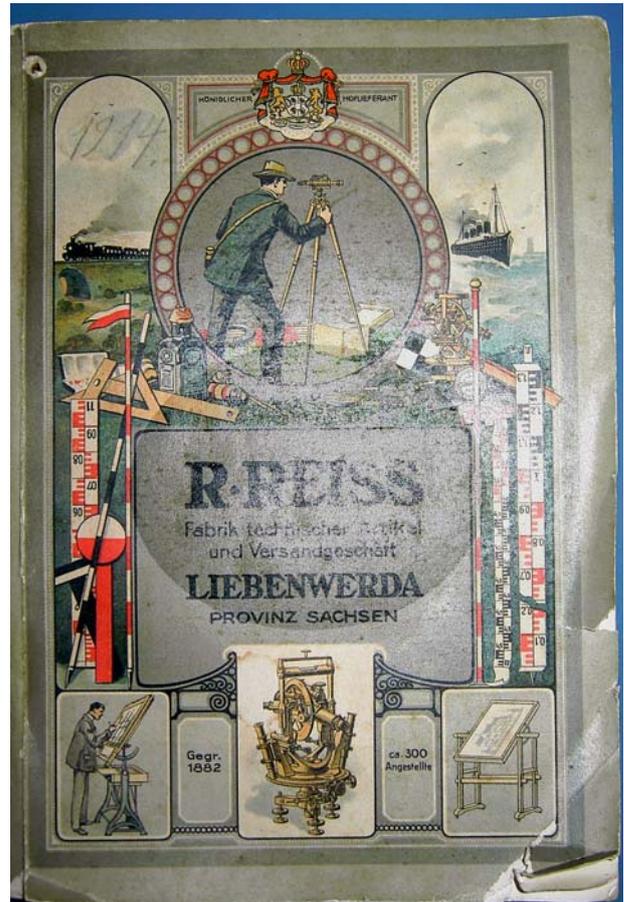


Fig. 40. Cover catalogue Reiss 1914

Also, there exists an interesting combination chalk line and plumb bob from the factory KUKA. (Figures 43 + 44). At that time they were building large gas storage tanks. Today their expertise is in the design and manufacture of industrial robots.



Fig. 43.
Mark KUKA



Fig. 44. Chalkline
combination KUKA

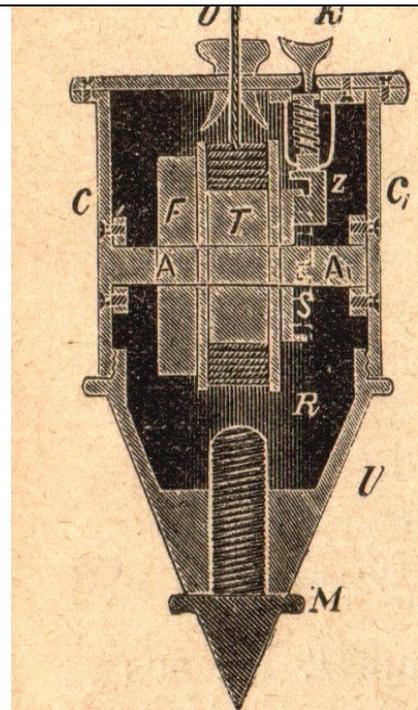


Fig. 42. Sectional view Blitzlot