Autor: Wolfgang Ruecker **www.senklote.eu**

LECKERBISSEN – Das SENKLOT erwähnt in alten Büchern - Hintergrundinfos

Inhaltsverzeichnis

A EINLEITUNG:

Lieber Sammlerfreund,

Du weißt ja sicher, dass ich ein großes Archiv mit vielen schriftlichen Informationen über Senklote habe. Dort gibt es auch etliche Stellen in alten Büchern, wo das Senklote, bzw. die Setzwaage u. ä. - also das Werkzeug, das wir lieben - , erwähnt werden.
Diese Quellen reichen aber häufig nicht aus, um darüber eine komplette Ausgabe dieser News zu schreiben. Deshalb habe ich heute mal einige davon zu einem Artikel zusammen gefasst.
Häufig sind die Quellen in English, aber ich habe für diese Deutsche Ausgabe einige Stellen ausgetauscht gegen Deutsche Buchtexte. Die Englische und die Deutsche Ausgabe unterscheiden sich deshalb diesen Monat.
Einige Quellen erzählen uns etwas über die VERWENDUNG des Senklotes, andere zeigen Zeichnungen von speziellen FORMEN, die mir bisher unbekannt waren. In den Amerikanischen Texten habe ich sogar das Senklot in GERICHTSAKTEN erwähnt gefunden. Du siehst, Senklote begegnen einem überall im Leben. ☺
Die Artikel sind aus Amerika, England, Australien und Deutschland.

Wenn Du selbst mal in alten Büchern „schmökern" willst, dann ist GOOGLE mit seiner Seite www.books.google.com sehr hilfreich. Google hat viele Bibliotheken von Amerikanischen Bibliotheken digitalisiert. Viele Infos in diesem Artikel wurden so gefunden. Danke.
Viel Erfolg bei der Suche. (Wenn Du Fragen hast, bitte melden).

Ach ja, die Benutzung von Senkloten als Waffe wird von dem Redakteur natürlich nicht befürwortet!

B INFORMATIONEN AUS ALTEN BÜCHERN

B 1 ALTE LOTE IN EINEN MUSEUM Ä(Genf/Schweiz)

CATALOGUE

DU

MUSÉE FOL

ANTIQUITÉS

Première Partie

CÉRAMIQUE ET PLASTIQUE

GENÈVE

H. GEORG | CHERBULIEZ

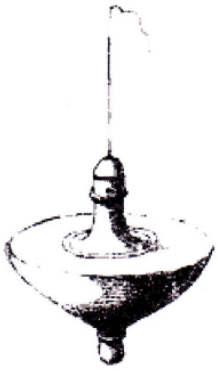
LIBRAIRES

1874

2. Outils de maçon et de charpentier.

Ces outils ont des formes qui, souvent, dérivent de celles d'instruments en pierre plus anciens; du reste, ils sont analogues à ceux de nos jours, avec cette différence qu'on cherchait à unir l'élégance à l'utilité.

1118



1118. Plomb en bronze de fil à plomb, en forme de toupie aplatie en haut; une pointe en-dessous indique le centre, la tête percée de deux trous latéraux qui se réunissent à un trou vertical et central.

H. 5. D. 5.

1119. Id., analogue au précédent le corps plus plein.

H. 4. D. 5.

1120. Id., pareil au précédent, la tête plus courte, le corps plus aplati.

H. 3. D. 5 ½.

1121. Plomb en bronze de fil à plomb, en forme de petit vase, du reste de construction pareille aux précédents.

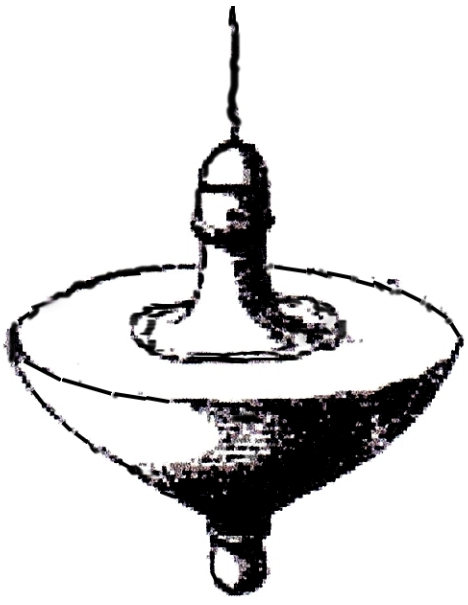
H. 2. D. 1 ½.

Übersetzung aus dem Französischen:

2. Werkzeuge von Maurern und Zimmerleuten

Diese Werkzeugformen stammen oft von den ältesten Steinwerkzeugen ab, oftmals sind sie sogar den heutigen ähnlich. Der einzige Unterschied ist, dass man versuchte Schönheit mit Funktionalität zu verbinden.

1118. Bronze Senklot wie ein Kreisel mit einer flachen Oberseite. Ein Punkt unten zeigt den Mittelpunkt. Der Kopf besitzt 2 Querbohrungen, die sich mit dem senkrechten mittigen Loch verbinden.
Höhe 5 cm = 2 inch;
Durchmesser 5 cm = 2 inch.



Die anderen Stücke **1119, 1120** und **1121** sind sehr ähnlich geformt (mit anderen Maßen).
Rechts: zwei Bilder aus Ebay Auktionen.

B 2 ALTE ZIMMERMANNS WERKZEUGE

(ohne Übersetzung)

KNIGHT'S

AMERICAN

MECHANICAL DICTIONARY:

BEING A

DESCRIPTION OF TOOLS, INSTRUMENTS, MACHINES, PROCESSES, AND ENGINEERING; HISTORY OF INVENTIONS; GENERAL TECHNOLOGICAL VOCABULARY;

AND

Digest of Mechanical Appliances in Science and the Arts.

BY

EDWARD H. KNIGHT,

CIVIL AND MECHANICAL ENGINEER, ETC.

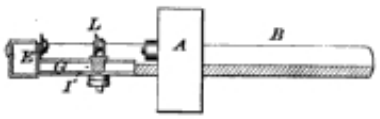
Illustrated

WITH UPWARDS OF FIVE THOUSAND ENGRAVINGS.

"Thus Time brings all things, one by one, to sight,
And Skill evolves them into perfect light."
LUCRETIUS, Book V.

NEW YORK:
J. B. FORD AND COMPANY.
1874.

Fig. 1119.



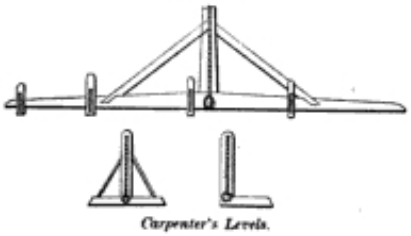
Carpenter's Gage.

screw. In the example, revolving rollers with sharp edges are used instead of marking points, and the roller *L* is adjustable towards and from the roller *E* for making two parallel scribes at a determinate distance from the fence *A*.

Car'pen-ter's Lev'el. An implement for determining horizontality and verticality.

It has a base piece, standard, and plumb-line, and

Fig. 1120.



Carpenter's Levels.

is used by builders and road-makers in testing surfaces, to ascertain whether they are level.

The feet may be so adjusted, to suit the required grade or pitch, that the level becomes a means of determining a slope.

Car'pen-ter's Plane. Carpenter's planes are of various descriptions, adapted to the different kinds of work they are intended to perform, — as, the jack-plane, for rough-dressing a surface; the smoothing-plane, for finishing it off; and grooving and molding planes, some of which have special names, for making grooves or elevations of various forms. See PLANE.

Car'pen-ter's Plow. A plane for making a groove in the edge of a board, to be occupied by the matching tongue of another board, or by the edge of a panel.

Car'pen-ter's Rule. Ordinarily, a two-foot rule, jointed in the middle and divided to eighths or sixteenths of an inch.

That shown in the figure has a pointed swinging arm, and also a curved scale and pointed index, so that the instrument may serve the purposes of a level, square, and bevel, any angle of inclination being noted by the pointer upon said scale.

Car'pen-ter's Square. An L-shaped steel rule having two arms meeting at a right angle, and graduated to feet, inches, and fractions. It is used by carpenters and other mechanics for laying off perpendiculars to a line or surface, and setting off the distances thereon at the same time. See TRY-SQUARE.

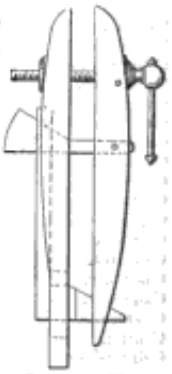
Car'pen-ter's Tools. In the reign of Henry II. of England, the whole stock of a carpenter's

Fig. 1122.

Roman Tools.

tools was valued at one shilling, and consisted of a broadaxe, an adze, a square, and a spoke-shave. The number has largely increased since. See specific index, WOOD-WORKING.

Fig. 1123.



Carpenter's Vise.

Fig. 1122 shows a variety of old Roman implements of this kind, as represented on existing monuments.

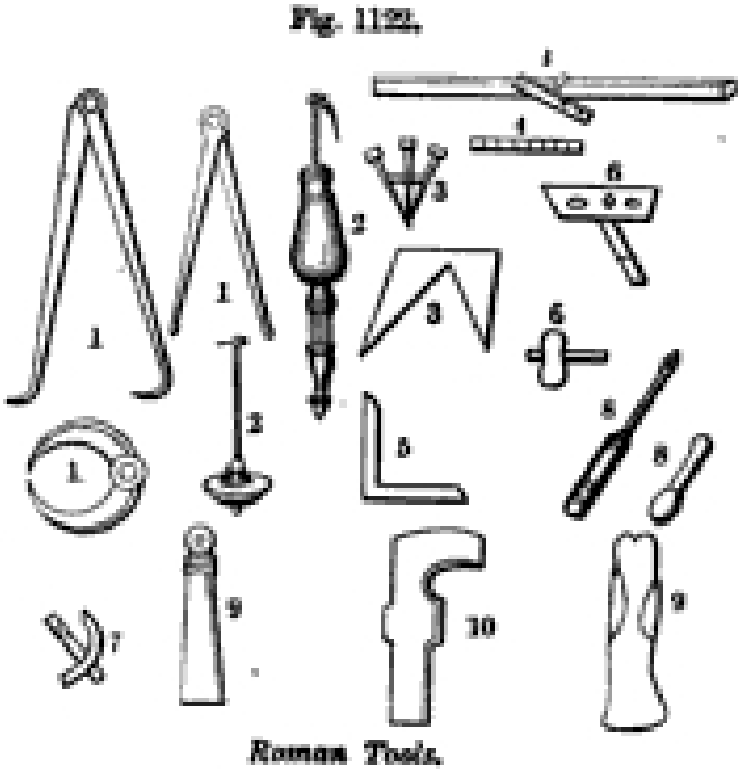
1 1 1, compasses and calipers.
2 2, plumb-bobs.
3 3 5, templet and squares.
4 4, single and jointed rules.
6 6, mallets.
7, adze.
8 8, scriber and soldering-tool.
9 9, chisels.
10, hatchet.

Car'pen-ter's Vise. A device with a stationary jaw attached to the bench, and a movable jaw operated by a screw, used for clamping a board or timber while being operated on by the plane or chisel.

Car'pen-try. See under the following heads:—

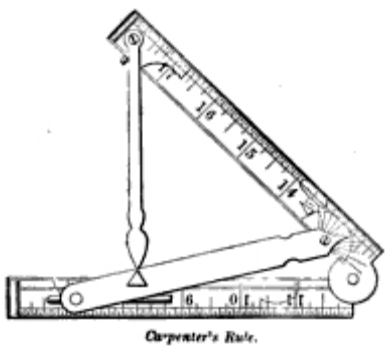
Abat-jour.
Abat-voix.
Abutment.
Accouplement.
Ajambe.
Ambe.
Angle-bar.
Angle-tier.
Ante-venno.
Apron.
Apron-piece.
Arched-beam roof.
Architrave.
Arris.
Arris-fillet.
Arris-gutter.
Ashlering.
Astragal.
Attic.
Awning.
Badigeon.
Balk.
Baluster.
Barge-board.

Fig. 1122.



Roman Tools.

Fig. 1121.



Carpenter's Rule.

B 3 ALTE SENKLOTE AUS POMPEJI / GRIECHENLAND

Dingler's
Polytechnisches Journal.

33062

Herausgegeben

von

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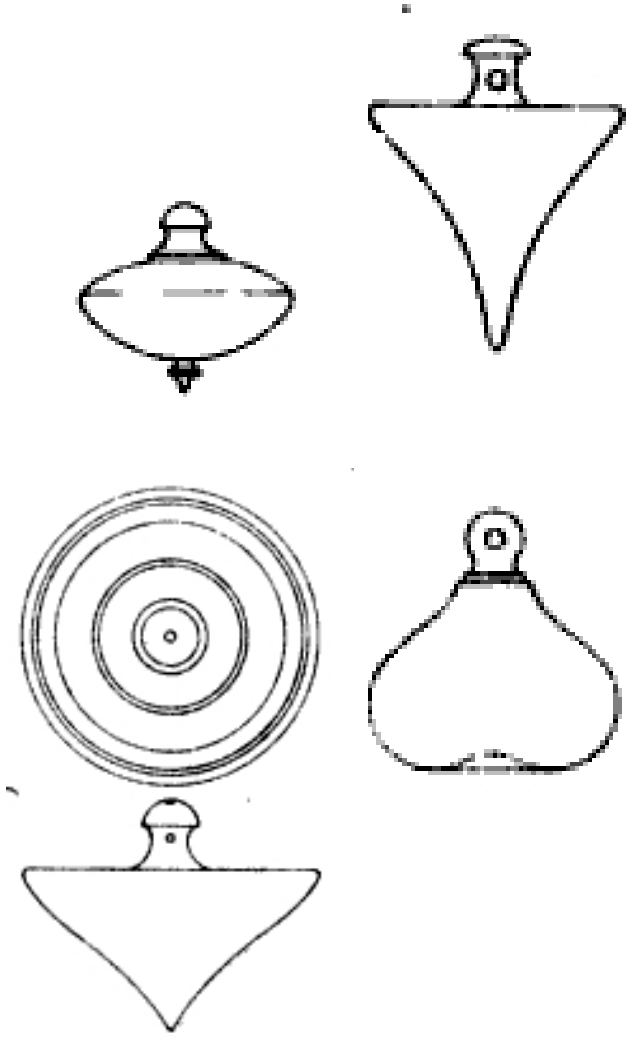
Stuttgart.
Verlag der J. G. COTTA'schen Buchhandlung.



Verschiedene Lotformen, gefunden in Pompeji

BEITRÄGE ZUR
GESCHICHTE DER TECHNIK
UND INDUSTRIE

JAHRBUCH
DES VEREINES DEUTSCHER INGENIEURE

HERAUSGEGEBEN
VON
CONRAD MATSCHOSS

ZWÖLFTER BAND

MIT 164 TEXTABBILDUNGEN, 12 BILDNISSEN

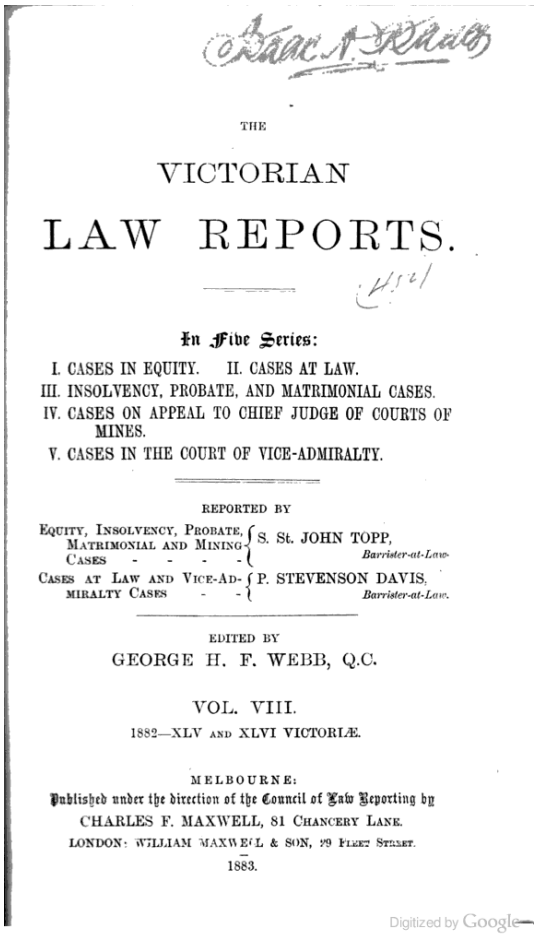
BERLIN
VERLAG DES VEREINES DEUTSCHER INGENIEURE
IM BUCHHANDEL DURCH
JULIUS SPRINGER / VERLAGSBUCHHANDLUNG
1922

Abb. 34. Senklot (Töpferkolonie Rheinzabern).

Rheinzabern liegt im Südwesten, nahe der französischen Grenze.

B 4 DAS SENKLOT ALS AUSREDE

Aus den Gerichtsakten des Landgerichts, KYNETON (nördl. v. MELBOURNE, AUSTRALIEN) von 1883.



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EDITED BY

GEORGE H. F. WEBB, Q.C.

VOL. VIII.

1882—XLV AND XLVI VICTORIÆ.

MELBOURNE:

Published under the direction of the Council of Law Reporting by

CHARLES F. MAXWELL, 81 CHANCERY LANE.

LONDON: WILLIAM MAXWELL & SON, 29 FLEET STREET.

1883.

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The evidence for the plaintiff was that he had been in the defendant's employment till March, 1880; that on Sunday, 27th November, 1881, some one called him up at 5 a.m. and sent him to the defendant's office, where the defendant asked him what he had been doing there that morning, that another person present had seen him inside the office and coming out of it; that the plaintiff denied this, and told the defendant to come to his house and see if any of his property was there; that, at 5 p.m., a constable came with a warrant, and arrested him; that the charge was afterwards dismissed.

The evidence for the defendant was that, before 5 a.m. on that morning, a workman called him up and told him that he had seen the plaintiff, at 4.20 a.m., coming out of the defendant's office, through a window, had spoken to him, and received the excuse that he was looking for his plumb-bob which the defendant had taken from him, to which the workman replied that it was not likely to be among the papers, and the plaintiff then entreated him not to tell; that the defendant and this workman went into the office and found the papers disturbed, and thereupon the plaintiff was sent for; that in the evening of that day the defendant obtained a warrant.

(freie Ü.). Ein Baustellenmitarbeiter wurde nachts erwischt, wie er in das Büro seines Chefs einstieg. Darauf angesprochen behauptete er: „Ich sehe nach dem Senklot, das mein Chef von mir hat……“ Das Chaos auf dem Schreibtisch sprach aber eine andere Sprache, so dass ihm die Ausrede nichts half. Folge: Haft, Anklage…

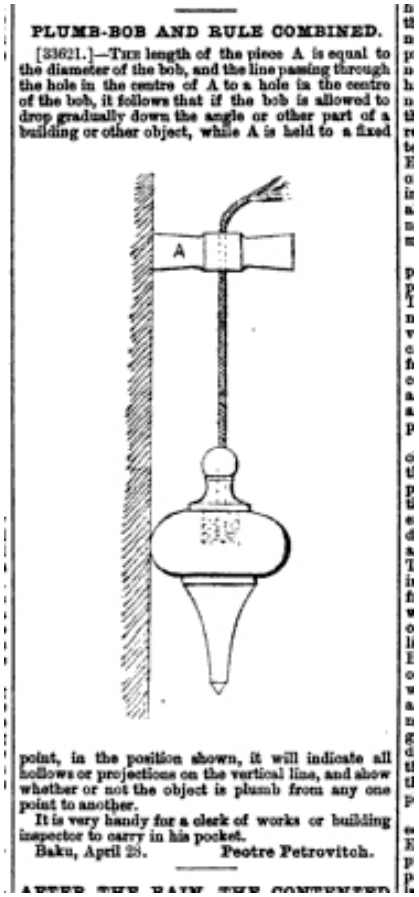
B 5 LOT KOMBINIET MIT ABSTANDSHALTER 1892

Aus “ENGLISH MECHANIC AND WORLD OF SCIENCE
No. 1420 JUNE 10, 1892 Seite 361”

(Freie Ü.)
“Die Länge von Teil A ist gleich dem Durchmesser des Lotes. Die Schnur geht durch das Loch in der Mitte des Senklotes. Daraus folgt, dass das Lote – wenn es frei runter hängen kann am Gebäude oder an einem anderen Objekt – während A in der gezeigten Position an einem festen Punkt gehalten wird, alle Vertiefungen oder Erhöhungen zur Senkrechten anzeigt. So sieht man, ob das Objekt von dem einen zum anderen Punkt senkrecht ist.

Die Kombination ist sehr handlich für einen Arbeiter oder Meister, um sie in der Tasche zu tragen.
Baku, April 28.1892 Peotre Petrovitch”

Bem.: Puuh, der hat sogar alles in EINEM Satz geschrieben. Ich dachte, dass nur wir Deutsche Schachtelsätze kennen. ☺



PLUMB-BOB AND RULE COMBINED.

[33621.]—THE length of the piece A is equal to the diameter of the bob, and the line passing through the hole in the centre of A to a hole in the centre of the bob, it follows that if the bob is allowed to drop gradually down the angle or other part of a building or other object, while A is held to a fixed

A

point, in the position shown, it will indicate all hollows or projections on the vertical line, and show whether or not the object is plumb from any one point to another.

It is very handy for a clerk of works or building inspector to carry in his pocket.

Baku, April 28. Peotre Petrovitch.

B 6 DAS SENKLOT ALS WAFFE.

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SOUTHERN REPORTER

VOLUME 77

PERMANENT EDITION

COMPRISING

THE DECISIONS OF THE SUPREME AND APPELLATE COURTS OF ALABAMA AND THE SUPREME COURTS OF FLORIDA, LOUISIANA AND MISSISSIPPI

WITH KEY-NUMBER ANNOTATIONS

JANUARY 19 — APRIL 6, 1918

ST. PAUL
WEST PUBLISHING CO.
1918

Sammlung Wolfgang

RILEY et al. v. DENEGRE. (6 Div. 444.)

(Supreme Court of Alabama. Dec. 20, 1917.)

1. ASSAULT AND BATTERY ⇐26 — SELF-DEFENSE—BURDEN OF PROOF.

Defendant in an action for assault and battery who set up self-defense has the burden of proving he was free from fault in bringing on the difficulty, the rule as to the burden of proof not being changed, because freedom from fault may be shown prima facie by proof of an imperative necessity for defendant's assault; such proof merely shifting the burden of going forward.

2. ASSAULT AND BATTERY ⇐28—ACTIONS—EVIDENCE.

Where it appeared that defendant in assaulting plaintiff used a plumb bob, which was a pear-shaped metal piece attached to a chain, and used in defendant's office as a paper weight, testimony that several months before the assault defendant struck his hand with the plumb bob and remarked that he could make a nice round hole in a man's head with it was admissible to show defendant's consciousness of the efficiency of the plumb bob as a weapon of attack.

Appeal from City Court of Birmingham; C. W. Ferguson, Judge.

Action by John S. Denegre against J. Robert Riley and others. From a judgment for plaintiff, defendants appeal. Affirmed.

C. B. Powell, of Birmingham, for appellants. Allen, Bell & Sadler, of Birmingham, for appellee.

SOMERVILLE, J. The action is in trespass for an assault and battery, and there was verdict and judgment for plaintiff.

[1] Defendant pleaded several pleas of self-defense, each of which alleged that he was free from fault in bringing on the difficulty. The trial judge instructed the jury that the burden of proof was on defendant to show his freedom from fault in bringing on the difficulty, and this is assigned for error. This question was ruled adversely to appellant in Morris v. McClellan, 169 Ala. 90, 98, 53 South. 155. It is true, as there pointed out, that

cases they attach the bob to the line, let it become still when within a few inches of the floor through which the hole is to be bored, and then let it drop, when the point of the bob makes the required mark in which to insert the point of the bit or auger. In the old or common forms of plumb-bobs, unless the greatest care is taken in dropping the bob, the point is apt to waver or vary from the true line, and the result is thus rendered unsatisfactory.

Ich hoffe nur, dass nicht eins meiner Senklote für diese Tätlichkeit benutzt wurde. (Hier ein VAJEN'S Patent vom 14. Nov. 1888 mit 1750 Gramm, konstruiert zum "FALLEN LASSEN"). Im Patent heißt es:
„Wenn das Lot zur Ruhe gekommen ist einige Zentimeter über dem zu bohrenden Loch, LASS ES FALLEN. Dann macht die Spitze eine Körnung, in die die Bohrerspitze eingesetzt werden kann…."

Hast Du auch bei Verhandlungen mit Kunden so einen Briefbeschwerer auf dem Schreibtisch? ☺

this freedom from fault may be shown prima facie by proof of an imperious necessity for the defendant's assault upon the plaintiff; yet this shifting of the burden of going forward with the evidence does not change the general burden of proof which requires the defendant to establish every element of his plea of justification.

[2] Plaintiff was allowed to show that about three months before the assault defendant had in his hand a plumb bob, a pear-shaped metal piece attached to a chain, and used in his office as a paper weight, with which he then struck his own hand, remarking "that he could make a nice round hole in a man's head with it." The evidence showed that defendant actually assaulted, beat, and seriously injured plaintiff about the head with this instrument; and some of the testimony tended to show that prior to the beginning of the difficulty defendant had the bob in his pocket, from which he drew it for the attack. Conceding that this declaration by defendant was not, under the evidence, admissible as a threat against this plaintiff, we nevertheless think it was admissible to show defendant's consciousness of the character and efficiency of the bob as a weapon of attack, and so to illustrate defendant's animus in its use, and the extent to which he intended to injure plaintiff. There was no error in its admission under the circumstances of this case.

Other assignments of error, being waived by noninsistence in brief, will not be considered.

Let the judgment be affirmed.

Affirmed.

ANDERSON, C. J., and MAYFIELD and THOMAS, JJ., concur.

(Freie Übersetzung, zusammengefasst):
Aus den Gerichtsakten des City Court of Birmingham und dem Supreme Court Alabama 1917.
Mr. Denegre war wegen tätlichem Angriffs und Körperverletzung mit einem Senklot verurteilt worden. Dagegen ging er in Berufung und wollte auf Selbstverteidigung plädieren.

Damit kam er aber nicht durch.
Zeugen sagten aus: 3 Monate vorher hatte er bei einer Besprechung im Büro ein Senklot an einer Kette, das er als Briefbeschwerer dort liegen hatte, genommen und sich auf die Hand gehauen mit der Bemerkung: „Das könnte ein schönes rundes Loch in einen Männerkopf machen".
Damit war bewiesen, dass er über die Gefährlichkeit und Wirksamkeit eines Senklotes als Waffe Bescheid wusste. Die Beweisaufnahme erbrachte, dass der Täter den Kläger schlug und schwer am Kopf mit dem Lot verletzte.
Zeuge sagten aus, dass Denegre das Senklot in der Manteltasche hatte, aus der er es für die Attacke heraus zog.

Einspruch abgelehnt.

Wartet hier vielleicht ein Vermesser mit einem Senklot in seiner Manteltasche auf einen Angriff? ☺

B 7 ARBEITSUNFALL BEI DER BENUTZUNG EINES LOTES

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UTAH, NEW MEXICO, OKLAHOMA, COURTS OF APPEAL
OF CALIFORNIA, AND CRIMINAL COURT OF
APPEALS OF OKLAHOMA

WITH TABLE OF PACIFIC CASES IN WHICH REHEARINGS
HAVE BEEN DENIED

ST. PAUL
WEST PUBLISHING CO.
1910

(18 Idaho, 158)

CRAESAFULLI v. WINSTON BROS. CO.
(Supreme Court of Idaho. April 29, 1910.)

(Syllabus by the Court.)

1. MASTER AND SERVANT (§ 278*)—INJURY TO SERVANT — NEGLIGENCE OF MASTER — EVIDENCE.

Held, under the facts of this case, that it was the duty of the master to see that the scaffold from which the defendant fell and was injured was safely erected.

[Ed. Note.—For other cases, see Master and Servant, Dec. Dig. § 278.*]

SULLIVAN, C. J. This action was brought to recover damages in the sum of $1,975 for injuries alleged to have been sustained by the plaintiff on or about the 2d day of December, 1908, while in the employ of the appellant corporation, by reason of his having fallen from a scaffolding when engaged in holding a plumb line for the purpose of plumbing a post used in timbering a tunnel. The appellant at the time of the injury was engaged in driving what is known as the St. Paul Pass Tunnel on the Chicago, Milwaukee & St. Paul Railway through the Bitter Root Mountains, which mountains form the dividing line between the states of Montana and Idaho. The accident occurred on the Montana side of the dividing line.

by the use of hammers. In order then to plumb the post, a scaffold or staging was erected along the sides of the tunnel as follows: A piece of lagging was nailed between two plumb posts on each side of the tunnel, and on this was placed what is known as a "spreader" or crosspiece (a piece of timber four by six inches) crosswise of the tunnel. Against the face or breast of the bench a ladder was placed, and from this spreader a plank (4 by 6) was placed, resting one end upon the spreader and the other on a rung of the ladder. Upon the staging a man was sent with a plumb line which he would hold up against the wall plate while the other men would hammer the post into line. Supervising the entire construction of the tunnel was a shift boss, who had authority to hire and discharge men working in said tunnel. The men were classified as machine men, helpers, muckers, steam shovel engineers, cranemen, skinners, switchmen, motormen, breakmen, nippers, and ditchmen. The respondent was

Verhandlung vor dem Supreme Court von Idaho 1910.
Es ging darum, welche Pflichten ein Baustellenleiter für seine Leute hat, damit sie nicht vom Gerüst fallen, wenn sie mit einem Senklot arbeiten. ☺
Achtung! Arbeiten mit einem Lot ist gefährlich!
Streitwert $ 1,975.
Der Mitarbeiter war von einem Gerüst gefallen, während er mit einem Lot die senkrechte Aufstellung eines Pfostens überprüfte.

B 8 MECHANISCHES SENKLOT (unbekannt)

Dieses DEACON Senklot wurde 1911 vorgestellt.

Zu dem rechts abgebildeten Senklot mit Feder-Aufwicklung konnte ich bisher keine Unterlagen (Patente, Kataloge o.ä.) finden.
Wer weiß mehr darüber?

A TREATISE ON

SURVEYING

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E. & F. N. SPON, LTD., 57 HAYMARKET
New York
SPON & CHAMBERLAIN, 123 LIBERTY STREET
1911

DEACON'S ADJUSTABLE PLUMB-BOB. (Fig. 146.)

The plumb-bob is cast in three parts, A, B and C, which are capable of being screwed together as in figs. 1, 2 and 3. The castings are hollowed out as shown in section in figs. 2 and 3, and in plan, fig. 4, and the wheel D, figs. 2, 3 and 4, is carried by the bearings E and F, figs. 1 and 2. This wheel is held stationary by the friction between one of its sides and the side of the casting at G, figs. 2 and 4. The small metal cylinder, H, fig. 2, fits into part of the space I (fig. 4) and rests against the spring J (fig. 2), which fills the remainder of the space. The spiral spring, K, figs. 2, 3 and 4 is attached to the hub of the wheel at L, figs. 2 and 3, and to the casting at M, figs. 2, 3 and 4. On pressing the button F, figs. 1 and 2, the wheel is shifted laterally from the face of the casting at G (fig. 2), and relieved of its friction, and the spring J, fig. 2, is compressed. The plumb-bob can then be raised or lowered to the desired position. When the button F is released, spring G throws the wheel into friction again, and the plumb-bob is held stationary. When the plumb-bob is lowered, spring K is wound up. When it is desired to raise the plumb-bob, press the button F; the wheel D will then be released and the spring K will cause it to revolve and to wind up the cord of the plumb-bob.

The plumb bob hangs quite freely without any movement, in any position.

328 SURVEYING.

FIG 1

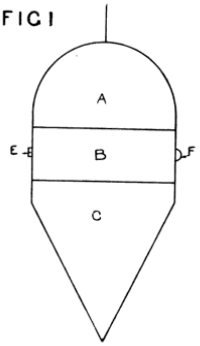


FIG. 2.

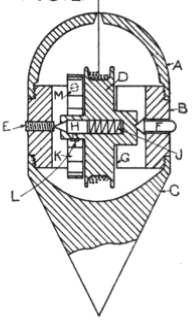


FIG 3.

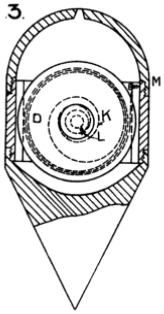


FIG 4.

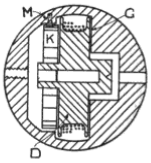


FIG. 146.

B 9 SENKLOT GUSSFORM (Nächstes Osterfest kommt bestimmt ☺)

Unten findest Du eine Bedienungsanleitung, um ein eiförmiges Senklot herzustellen, das man in ein Lotbrett hängen kann:

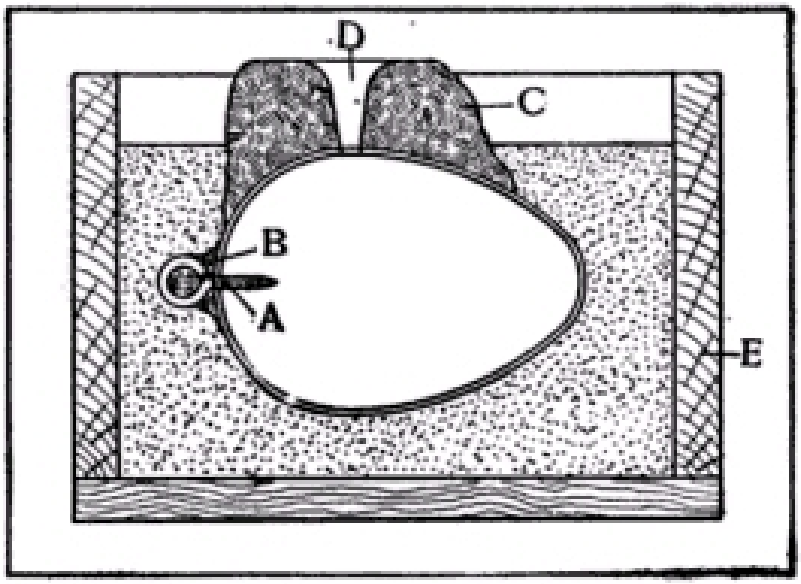
HOW TO MAKE A PLUMB-BOB MOLD

Make a small hole in the center of the large end of an egg, and another in the side, and blow out the contents. Dry the empty shell in an oven, and then fasten a small screw eye, A, in the end hole, by means of a piece of clay, B. Place another piece of clay, C, over the side of the egg, leaving an opening, D, to pour in the melted lead later.

Place the egg, with the clay on it, in a box, E, and pack with sand, having the opening, D, on top, as shown.

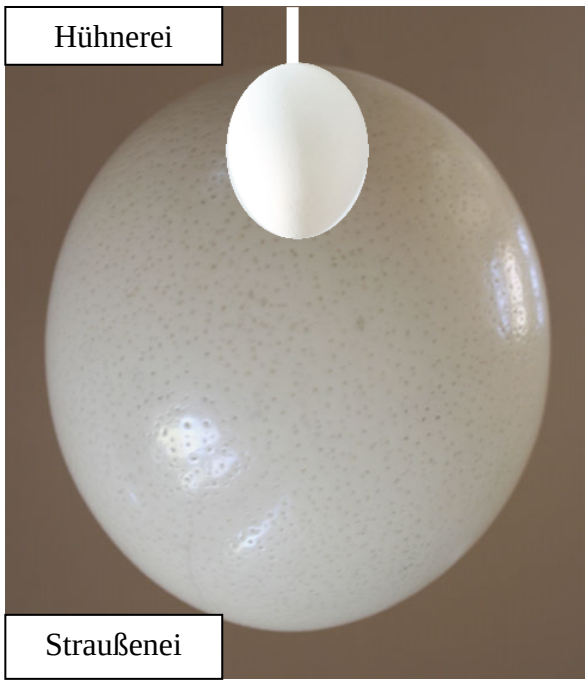
Having thus prepared the mold, melt about a pound and a half or two pounds of lead and pour in the opening. Allow plenty of time to cool, and then break away the egg shell, and you will have a good plumb bob.—Contributed by W. J. Slattery, Emsworth, Pa.

POPULAR MECHANICS JUNE 1906



Mold for a Plumb-Bob

Anleitung: Ei ausblasen, trocken und in das obere Loch einen Haken A stecken, den man mit etwas Lehm B befestigt. Mit weiterem Lehm C über dem Ei einen Eingußtrichter formen, nachdem man ein Gußloch D in die Seite des Eies gemacht hat. Das ganze in einen mit Sand gefüllten Kasten E einbetten. 700 – 900 Gramm Blei schmelzen und eingießen. Ausreichend Abkühlzeit abwarten, Schale aufbrechen, und fertig ist das gute, selbstgemachte Senklot.
Bild rechts: Das könnte so ein Lot sein.



Hochbau- und Brückenbau- Ingenieure in AFRIKA könnten dann ja evtl. statt eines Hühnereies ein Straussenei nehmen. Das ist ca. 25 bis 30 mal so groß. Dann erhält man statt einem 1 kg Lot jetzt ein 20 kg Lot ☺ ☺
Genau richtig für den Brückenbau.

Für das erste Bild eines STRAUSSENEI-SENKLOTES gibt es einen Preis von mir ☺

B 10 ZUBEHÖR (Do it yourself)

Das Senklot in der Skizze sieht so aus wie eine “Chinesen-Hut” (No. 212 mit Gewicht von 8 oder 11 oz) aus einem Berger Katalog von 1908. (Berger war aus Boston Mass. U.S.A.)
Anleitung zum Selbstbau eines Senklot Halters, der an einen Gürtel gehängt werden kann.

A PLUMB-BOB POCKET.

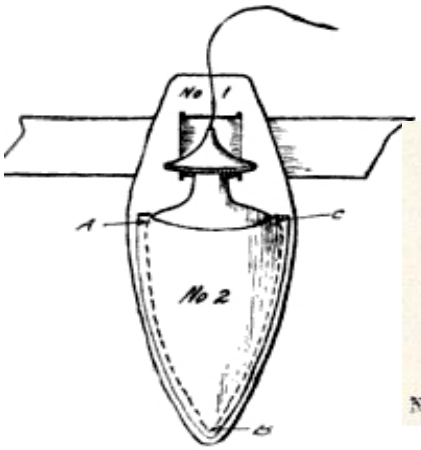
By Elijah H. Owen, Hartford.

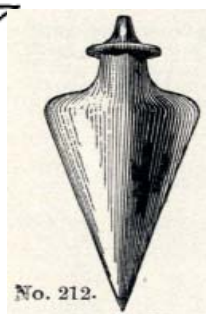
The accompanying sketch shows a pocket for plumb-bob, to be worn on a belt. I first saw one of these devices in Mr. Minor's office at Greenwich. He got the idea from Mr. Kirby of Portchester, N. Y., who conceived it. As it is inexpensive and decidedly useful, I herewith, with consent of the "inventor," bring it to the attention of the members of this association. As seen in the sketch, it is simple of construction. Any harness-maker can make one from two pieces of scrap leather.

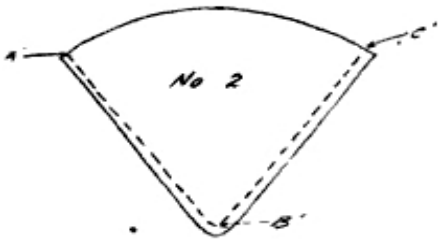
No. 1, the back, should be fairly stiff, and is provided with two slits near the top, through which the belt passes. No. 2 should be cut so as to make a close fit for the bob, its entire length. Under the point enough room should be left to prevent the bob from resting on the point, in order to lessen its liability to be thrown out by a sudden jolt. For the same reason, the pocket should be deep enough to slightly overlap the widest part of the bob. The top, A′C′, is an arc of a circle whose center is near B′.

When sewed together, the line A′B′C′ coincides with abc, thus forming the pocket desired. The sizes and shapes of these pieces will, of course, vary with those of the bob, but patterns may be cut out of paper, and altered, until the desired fit is obtained.

In work requiring frequent use of the plumb-bob, the saving of one's pocket caused by the use of this little holder may repay the user, and it is certainly advantageous to have the bob always right-side up and easily withdrawn.




No. 212.

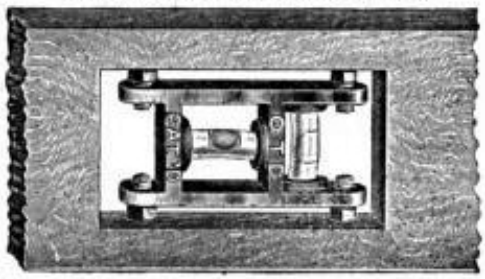


B 11 DIESE ERFINDUNG SEI DAS ENDE DES SENKLOTES (So dachte er)

Bitte den Ratschlag aus einer Anzeige von 1921 nicht befolgen:
“…Mach es Dir nicht selbst schwer, indem Du Dich an dem Senklot festklammerst.
SCHMEISS ES WEG!
Sei modern durch Benutzung der “AUF DEN PUNKT” Wasserwaage ...”

Die O.T.D. Wasserwaage findest Du im Patent **US 1,393,328 Oct. 11, 1921** und US 1,281,096 Oct. 8, 1917 Erfinder Christopher F. Thullen Chicago.

ON-THE-DOT LEVEL DEVICE



Price $3.00 at Your Dealer, or direct

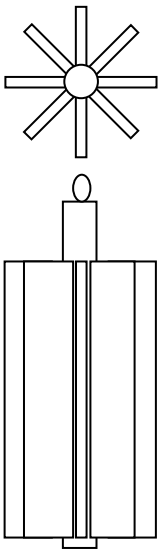
Be progressive, check your level now and then. The best recommendation a mechanic can give is his tools, if your employer sees that you use up to date tools he knows at once that you are the man he wants. So do not hold yourself down by clinging to the old fashioned plumb bob and stationary level. Throw away your plumb bob and be up to date by using an O. T. D. level. It entirely eliminates the use of a plumb bob, and you can make your level bar of any length that the job may require for the accurate adjustment of your work. It is adjustable and by the use of the set screws you can always keep it on the dot, and thereby insure yourself at all times against the use of an imperfect level.

Check the level you are using and see if it is worth carrying around with you. Place it flat against the wall, make it level and mark both ends, at the bottom, then reverse placing ends on the opposite marks, look at the glass and if it does not check throw it away and order an O. T. D. Level.

CHAS. M. NEIMES SALES CO.

144 No. Waller Ave. Chicago, Ill.

B 12 NEUE FORMEN VON BERGWERKSLOTEN



Zeichung erstellt durch Wolfgang nach der Beschreibung im Text.

In “THE JOURNAL OF THE IRON AND STEEL INSTITUTE LONDON and NEW YORK 1891“ fand ich eine Form von Bergwerksloten, die ich bisher nicht kannte:

Plummet for Deep Shafts.—In surveying the mines of the Lehigh Valley Coal Company a new form of plummet is used. It consists of a vertical core 12 inches long, with eight radiating flanges 9 inches high by 3 inches wide of ¼-inch metal. At the bottom there is a circular disc acting as a web. This plumb-bob weighs 20 lbs., and has a surface area of about 630 square inches. An ordinary bob of equal weight would have a surface of 90 square inches. In a dry shaft, 500 feet deep, this form of plumb-bob will settle, under ordinary conditions, in about one hour instead of in five or six hours, as is the case with the older form.‡

* *Comptes Rendus Mensuels de la Société de l'Industrie Minérale*, 1891, pp. 93–99.
† *Ibid.*, 1890, p. 157.
‡ *Engineering and Mining Journal*, vol. li. p. 743.

Eine ähnliche Form wurde beschrieben in:

THE

PRINCIPLES AND PRACTICE

OF

SURVEYING

BY

CHARLES B. BREED AND GEORGE L. HOSMER

INSTRUCTORS IN CIVIL ENGINEERING, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SECOND EDITION
THIRD THOUSAND

NEW YORK
JOHN WILEY & SONS

LONDON: CHAPMAN & HALL, LIMITED
1907

296 MINING SURVEYING [CHAP. XI.

327. **PLUMBING THE MERIDIAN DOWN A SHAFT.** — To the mine surveyor the plumb-line is an instrument of precision, excelling even the transit, and under most conditions, the work of transferring the meridian down a mine can be accomplished more accurately by means of the plumb-line than by any other method accessible to the surveyor.

The method usually followed is to suspend two bobs from the staging above the mine so that a horizontal line in their plane can be sighted both from above and from below. The transit is set up both above and below on this line and thus an azimuth connection is established between the surface and the workings. Sometimes a much longer base-line than can be directly sighted can be obtained by plumbing down at the corners of a shaft as shown in Fig. 134. Points *A* and *B* have been plumbed down and, by the triangulation method there indicated, a connection with the underground traverse can be established. In this triangle the angles should be chosen so as to give good intersections.

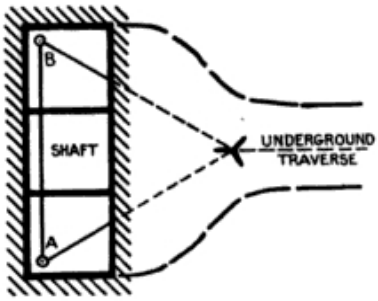


FIG. 134. TRIANGULATING AT THE BOTTOM OF SHAFT.

All kinds of drafts in the shaft should be avoided during the alignment at the bottom. No cages or skips should be run and the passages leading to the shaft may have to be damped with sheets of canvas. No lateral streams of water should impinge on the plumb-lines; in fact it is desirable that no water at all should drop in their vicinity.

The best plumb-line for this work is one made of wire. Annealed copper wire is most flexible, but soft steel or piano wire being thinner will be less affected by drafts and will also stretch less. The plumb-bob should not weigh less than five pounds and should be heavier for a deep shaft. A good working weight is one-third of the load at which the wire will break.

The plumb-bob is hung in a bucket or a barrel of viscous liquid so as to bring it to a standstill in the shortest possible time. The shape of the plumb-bob is of importance in this respect

Es geht bei diesen beiden Formen darum, das Lot schneller zur Ruhe zu bringen. Dazu wird es in einen Behälter mit Flüssigkeit (Wasser, Leichtöl, Melasse o. ä.) gehängt. Die zusätzlichen Flügel bieten eine zusätzliche Angriffsfläche und stoppen das Lot schneller.

and the form shown in Fig. 135 is a good one, since it prevents rotary as well as lateral oscillations. It should hang near the top of the vessel as the wire will be in a high state of tension and will stretch considerably. A mark should also be made on the wire showing how far the bob is above the bottom of the vessel.

The liquid must be a true one (not a mud or slime) and it must be neither too limpid nor too viscous; for in the former case it will not stop the oscillations within a reasonable period, and in the latter the bob may not reach the central position quickly enough. The amplitude of the vibrations of the plumb-bob decreases in a fixed ratio with equal increments of time, and the viscosity of the fluid should be such as to make each oscillation, say, about one-quarter of the preceding. The ratio of decrease during equal increments of time is independent of the length of the plumb-line and of the amplitude of the oscillations if the resistance is purely viscous. This law makes it possible to select the fluid above ground, with the aid of a short length of wire attached to the bob; it applies only when the bob swings through a very small arc so that the resistance is wholly viscous. It may be noted that the period of oscillation varies approximately as the square root of the length of the plumb-line, the same as for a pendulum swinging in air.

If the shaft is wet the vessel should be covered with a sloping lid having a hole in it of an inch or so in diameter so that the wire can swing freely. In order to obtain as long a base-line as possible the wire should be hung as near to the casing of the shaft as is consistent with the precaution that it shall be perfectly plumb. It should be carefully examined along all its length to make sure that there are no obstacles to interfere with it. In some cases it may be sufficient to pass a lighted candle around the wire at the bottom and observe any obstacles by sighting from the top. The distance between the wires at the bottom and top of the shaft should always be measured and compared,

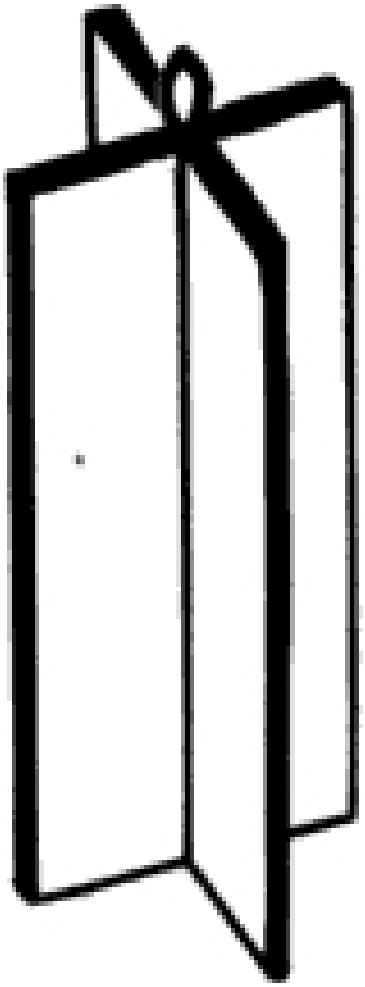


FIG. 135. TYPE OF PLUMB-BOB USED IN PLUMBING MERIDIAN DOWN A SHAFT.

B 13 BERGWERKSLOT MIT FLÜGELN

Hier ist noch ein anderes interessantes Bergwerkslot:

TRANSACTIONS

OF THE

AMERICAN INSTITUTE OF MINING

ENGINEERS.

VOL. XXIV.

FEBRUARY, 1894, TO OCTOBER, 1894,

INCLUSIVE.

NEW YORK CITY:

PUBLISHED BY THE INSTITUTE,

AT THE OFFICE OF THE SECRETARY.

1895.

SURVEY OF UNDERGROUND CONNECTION AT LEAVENWORTH, KANSAS.

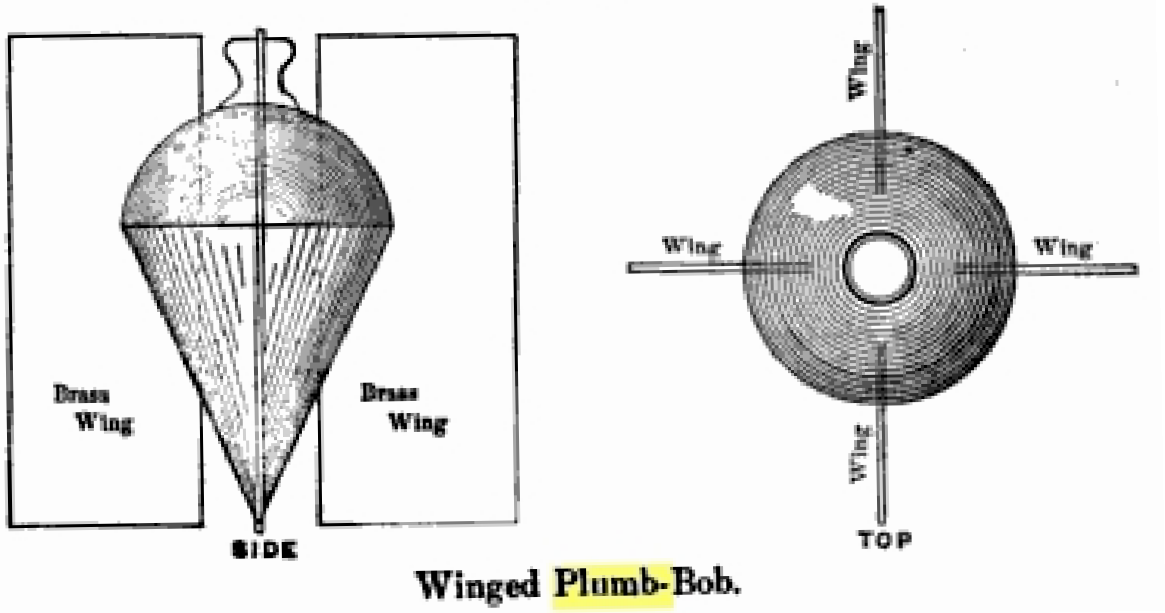
BY EDWIN A. SPERRY, GOTHIC, COLO.

(Virginia Beach Meeting, February, 1894.)

The second problem, that of dropping the bases in the shafts, was one of great importance, and demanded, of course, the utmost care and accuracy of instrumental work. I first tried plumb-lines, with 5-pound plumb-bobs. I used braided linen line at first, thinking that the lightness of the line would be an advantage, but found that this would not do. Next I tried fine piano-wire; and although it was an improvement, it was not much better. I then sawed slits in the sides of the plumb-bobs, into which I inserted square pieces of sheet-brass, in order to offer more resistance to the oil or water in which I hung them. I found this a great improvement, but even then they were not steady. Water was dropping considerably in the shafts, more especially in the Home shaft, and notwithstanding the fans were stopped, there was a constant whirl of air, which threw the drops of water from side to side, so that when they struck the line it was with considerable force, enough, it seems, to prevent its settling perfectly.

Fig. 2 represents my "winged" plumb-bob. I think it would be highly serviceable in shafts not more than 200 or 300 feet in depth. As a final measure, I obtained from Messrs. Gurley a side telescope, which A. S. Aloe & Co., of St. Louis, attached to my transit. In order to adjust the instrument thoroughly, I suspended one of my "winged" plumb-bobs in oil, with fine piano-wire, from a high trestle, on which I adjusted the axis on the standards after having adjusted the line of collimation in the main telescope.

FIG. 2.



Winged Plumb-Bob.

Die Bilder dieses „FLÜGEL-LOTES“ sprechen für sich, so dass ich keine Übersetzung mache. Natürlich kann diese Änderung mit Messingflügeln nur in Flüssigkeiten benutzt werden. In der Luft würde sie genau den gegenteiligen Effekt hervor rufen.

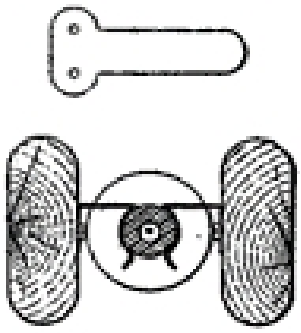
Es wäre genau das Gegenstück zu einem Quecksilber gefüllten Senklot mit schmaler Silhouette.

B 14 SENKLOT HALTER für einen Stativfuss

In “COAL MINING KINKS” New York 1916 fand ich die Bauanleitung für eine Klammer zur Aufnahme eines Senklotes. Angebracht an einem Bein des hölzernen Stativ:

Plumb-Bob Holder for Transit Leg

In making the plumb-bob holder illustrated, cut two pieces of thin spring brass as shown in the accompanying sketch. Bend as shown, and fasten in the split leg with ¾-in. round-head brass screws. Cut from the same material an oval plate, and tack it on the block below with brass brads before boring the 5/32-in. hole for bob point. A very light grip will hold the bob, even up to a jolt which would put the instrument out of business. No parts project. And no “trigger work.”



A Brass Spring Plumb-Bob Holder for Transit Leg

Aus “MINING” 1895 ist der Artikel unten über eine spezielle Setzwaage:

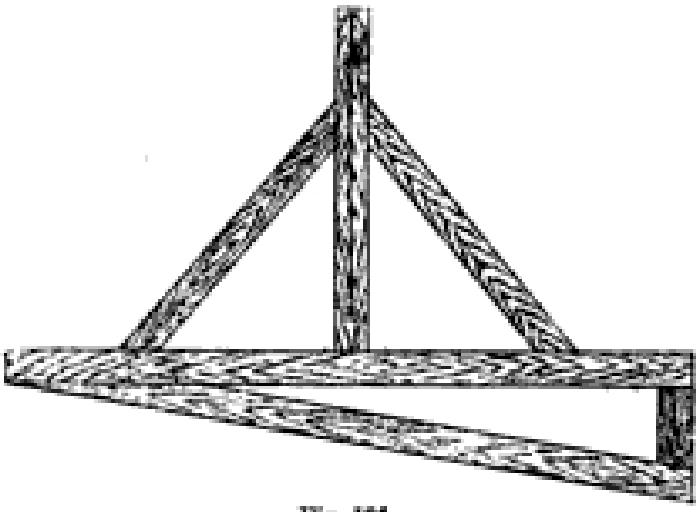


Fig. 104

To keep a tunnel at a given inclination, the instrument shown by fig. 104 is often used. To the centre vertical piece is attached a plumb-bob, and the lower foot-piece is set at the angle or inclination which it is required the tunnel should be driven at. The illustration represents the proper dimensions and angle for an inclination of one in six, the length of the main horizontal piece being 6 feet, and the distance from the bottom of this piece to the bottom of the inclined piece being one foot.

B 15 PROBLEME MIT HOHLEN, GEFÜLLTEN SENKLOTEN (1896)

THE

ENGINEERING MAGAZINE

DEVOTED TO

INDUSTRIAL PROGRESS

VOLUME X

October, 1895, to March, 1896

NEW YORK

THE ENGINEERING MAGAZINE CO.

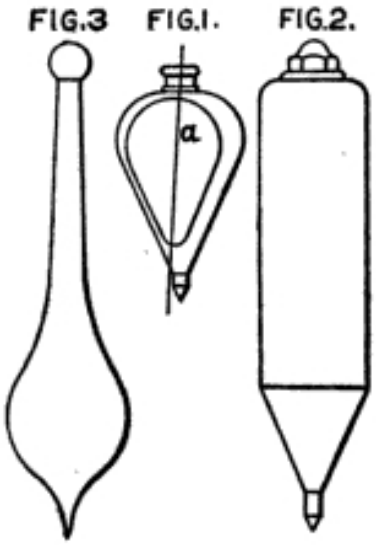
1896

A Word About Plumb Bobs.

IN an article on erecting and starting steam engines, by "Spike" in *Machinery* (New York, Oct.), some useful hints regarding the plumb-line and plumb-bob are given. This implement, when well-made, ought to be classed among tools and instruments of accuracy; but "Spike" shows that, as ordinarily made and kept on sale in the hardware and tool stores, it is an instrument of inaccuracy. He says:

"The first plumb-bob that I used was the regulation hardware store arrangement familiar to all (see Fig. 1), and it got me into lots of trouble. It was brass, cast hollow, and filled with lead, and the brass was about $\frac{5}{16}$ in. thick on one side, or $\frac{1}{32}$ in. on the other. The lead, being heavier than the brass, brought the center of gravity to one side, or on a line *a* (Fig. 1), and the shape kept it well up; consequently the error was magnified considerably at the point. That plumb-bob met with an accident, or I probably should have never known how it was constructed or why its point would scribe a circle if it got to whirling. Then I made one like that shown in

Fig. 2, of a piece of steel $1\frac{1}{8}$ in. diameter by 4 in. long, which I considered all right, and used it for a long time, with lots of good chances to give it away, which I



finally did, and then made one like that shown in Fig. 3, which I thought couldn't be improved upon; but I am going to make one more, and it will be like the last named, only 9 in. long, while that shown in Fig. 3 is only 5 in. long. The new one will have a long, slim neck of ¼ in. diameter, and will be of tool steel instead of soft steel. For lines use braided silk, and in the long run you will find it much cheaper, and better satisfaction will offset the extra cost."

Der Schreiber hatte festgestellt, dass ein Lot nach Figur 1 nicht „mittig hing“, d.h. bei Drehung der Schnur einen Kreis beschrieb. Erst als ihm das Lot herunterfiel, sah er die Ursache. Die Wandung war auf der einen Seite wesentlich dicker als auf der anderen. Da das Messinglot mit Blei gefüllt war, hing es wegen der unterschiedlichen spezifischen Gewichte „schief“.
Später stellte er ein Lot nach Fig. 2 her, das er durch die Form 3 aber noch verbesserte. Vorgesehen war diese Form 3 dann noch wesentlich länger (23 cm für 12 cm). (Es geht wie immer um einen tiefen Schwerpunkt)

B 16 DIE FORM DISKUSSION 1

von SHOP KINKS New York 1896

SHOP KINKS

AND

MACHINE-SHOP CHAT:

A SERIES OF

OVER FIVE HUNDRED PRACTICAL PARAGRAPHS

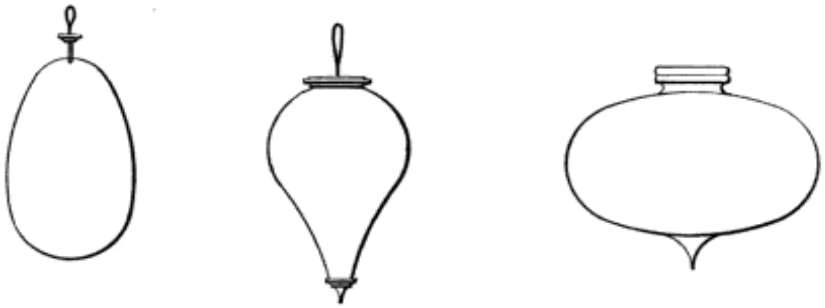
In familiar language, showing special ways of doing work better, more cheaply and more rapidly than usual.

By ROBERT GRIMSHAW, M.E., etc.

WITH 222 ENGRAVINGS.

NEW YORK:
NORMAN W. HENLEY & CO.,
132 NASSAU STREET.
1896.

Plumb-Bobs are seldom if ever made of the right shape to insure their coming to rest soon. They are usually made of pear shape with the string where the stem would be; or when they are intended to indicate a point underneath them, instead of a line alongside of the line, they are top-shaped with a sharp spike. In the former case the swinging is stopped in the least possible time permissible with such a bob, by letting it hang in a pail of water or very thin mud, or some other liquid.



FIGS. 163 TO 165.—FORMS OF PLUMB-BOBS.

But both of these forms are all wrong. Any body tends to rotate about its shorter axis; and if not hung in this line it will not make any difference, but will wabble about and try to assume that line. That this is a fact, any school-boy who has attended lectures on physics, and seen a whirling-machine cause a chain ring hung by one edge to flatten out and revolve about an imaginary axis, can attest. Now the plumb-bob should be turnip-shaped, so that it can be hung on its shortest axis; and then all the whirling that it can undertake will not make this axis swerve from a vertical line. If for ordinary use in plumbing columns, etc., it needs no points; but if it is to be hung so as to point to a particular spot on the ground it should have a spike as a prolongation of this shorter axis.

Plumb-Bob Lines may be readily reeled up by using the cheapest kind of fishing-rod reel on a short pine stick. It is just as good as though it cost forty dollars.

Plumb-Bob Tips screwed to the body of the bob may have a milled flange about half an inch from the butt end, and a thread cut on both sides of this flange, so that when the bob is not in use the point may be unscrewed and turned into the body of the bob, thus lessening the room required and diminishing the chance of injury to the point.

Auch hier geht es um die beste Form, um das Lot stabil zu halten.
Aussage: Die linken beiden Formen sind nicht gut, da zu lang. Ein Lot sollte „turnip shaped“, also rübenförmig sein. “Jeder Körper rotiert um seine kürzere Achse”.

Schnüre könne man auch auf Anglerspulen aufrollen, bzw. auf einem Holzstück. Das ist genau so gut, wie eine “40 Dollar-Lösung”. ☺

Einschraubbare Spitzen sollten bei Nichtbenutzung herausgeschraubt werden. Vermindert Verletzungsgefahr und spart Platz. ☺

B 17 DIE FORM DISKUSSION 2

MINUTES OF PROCEEDINGS

OF

THE INSTITUTION

OF

CIVIL ENGINEERS

WITH OTHER

SELECTED AND ABSTRACTED PAPERS.

VOL. XCII.

EDITED BY

JAMES FORREST, ASSOC. INST. C.E., SECRETARY.

LONDON:

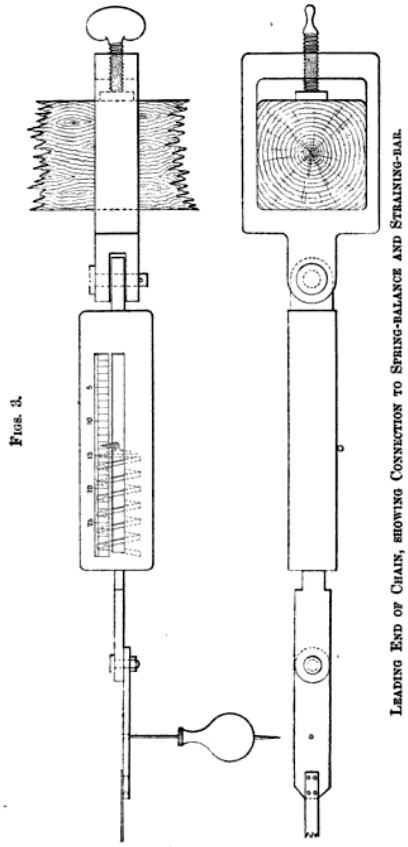
Published by the Institution,

25, GREAT GEORGE STREET, WESTMINSTER, S.W.

[TELEGRAMS, "INSTITUTION, LONDON." TELEPHONE, "3051."]

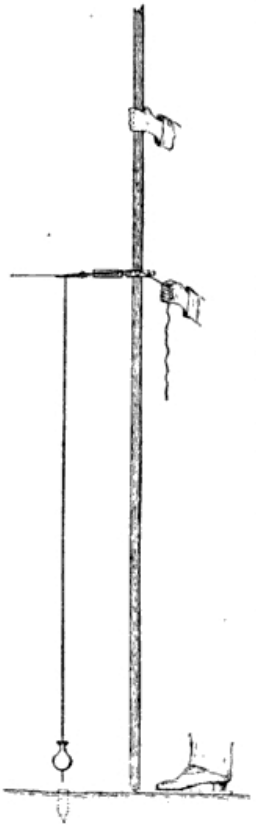
1888.

balance. In the centre of this plate was drilled a hole $\frac{1}{32}$ inch



FIGS. 3. LEADING END OF CHAIN, SHOWING CONNECTION TO SPRING-BALANCE AND STRAINING-BAR.

FIG. 4.

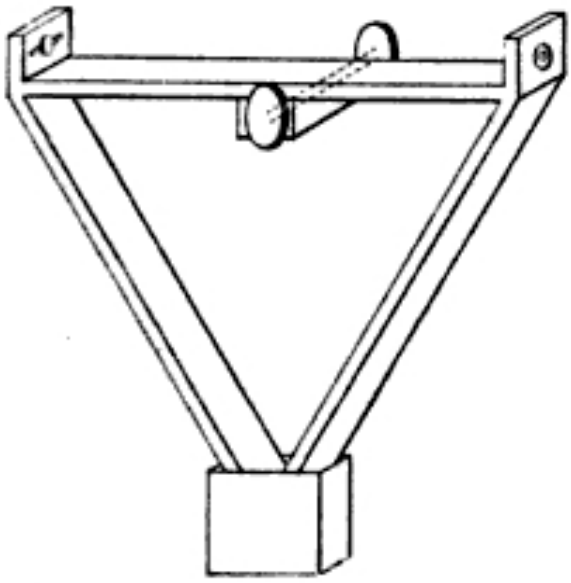


STRAINING-BAR, LEADING END.

in diameter, to allow the string of a plumb-bob to pass through,

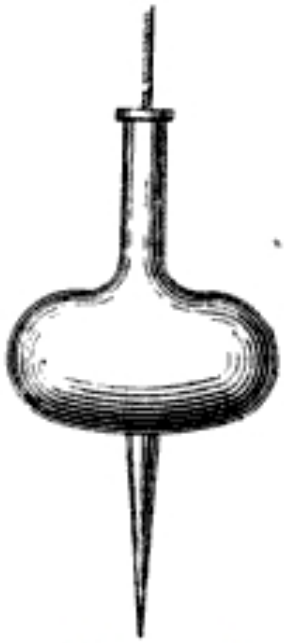
[T

FIG. 5.



SELF-ADJUSTING CHAIN LEVEL.

FIG. 6.



PLUMB-BOB.

Auch hier geht es um den möglichst niedrigen Schwerpunkt.

Außerdem wird eine Installation beschrieben, die man nicht wirklich benötigt.

then sights the back end of the chain with a small self-adjusting plumb-level (Fig. 5), and gives the leading man the height to which he must slip the collar on the straining-bar. This fixed (and the temperature from the attached thermometer noted), the leading man puts his foot upon the shoe, and pulls the bar until 16 lbs. is registered on the balance, then, holding the bar with one hand, with the other he raises or lowers the plumb-bob until it just swings clear. An assistant now notes the approximate position of the point of the plumb-bob, and drives into the ground either a small wooden peg about 1 inch by 1 inch, or else a clout-headed nail, according to the nature of the soil (if rock, a scratch is made); a piece of gummed paper is then affixed to the nail or peg, on which, when the plumb-bob is allowed to swing again, the point directly under its centre is marked. A special plumb-bob with a low centre of gravity, and a long, fine steel point, is used for this purpose (Fig. 6).

Lately it has been found better to dispense with the plumb-bob swinging from the riband to the ground, on account of the error caused by currents of air, and to use instead a small plumb-bob hung about ½ inch from the plate (Fig. 3). After setting a light theodolite up as near as possible at right-angles to the end of the chain to sight the string where it passes through the plate, the telescope is depressed and a sharp pointed pencil held vertically on the peg is put in line, which when in correct position is twisted, making a small dot sufficiently distinct for the back chainman to see. The chain is now carried onward and the process repeated for

B 18 DIE FORM DISKUSSION 3

Aus:

SHAFTING; PULLEYS, BELTING, ROPE
TRANSMISSION AND SHAFT GOVERNORS
Compiled and written by
HUBERT E. COLLINS
NEW YORK
C 1908

Der Schreiber ist ganz begeistert von seinem Senklot. Es hat entweder einen kugeligen Körper, oder kann mit Scheiben in die entsprechende gewünschte Form gebracht werden. Die Zusatzteile werden über den kegeligen Kern geschoben und bleiben dann stabil.

IV

TRUING UP LINE SHAFTING

It is assumed, for the purposes of this description, that the modern style of shafting, increasing in diameter by the ½ inch, is used, and that all pulleys and belts are in place. We will take a line composed of sizes ranging between $3\frac{1}{16}$ and $2\frac{7}{16}$ inches. This gives us four sizes, $3\frac{1}{16}$, $3\frac{7}{16}$, $2\frac{1}{16}$ and $2\frac{7}{16}$ inches in the line.

We will first consider the plumb-bob. The accompanying sketch, Fig. 47, illustrates a good one.

The ball is 1½ inches diameter, and the large end of the tapered stem ½ inch in diameter, turned parallel for a short distance at the lower end. The two thin sheet-steel disks, 1 and 2 inches in diameter, are drilled to fit snugly when pushed on to the ½-inch part of the stem, and stay there until pulled off. These disks are turned true. This arrangement of plumb-bob and disks enables us to deal with five sizes on one line, and there are not many lines that contain more.

Now having our plumb-bob ready, we will stretch the line. The stretchers should be set horizontally by nailing a strip of wood, say 1 × 1½ × 12 inches, with a piece at each end to form a space between it and the wall, or place of location in line with the edge of the shaft, as in Fig. 48. The top of this stretcher should

49

be low enough to clear the largest pulley, and high enough to clear the hat of your tallest man. You would perhaps find it convenient to go between the spokes of a large pulley.

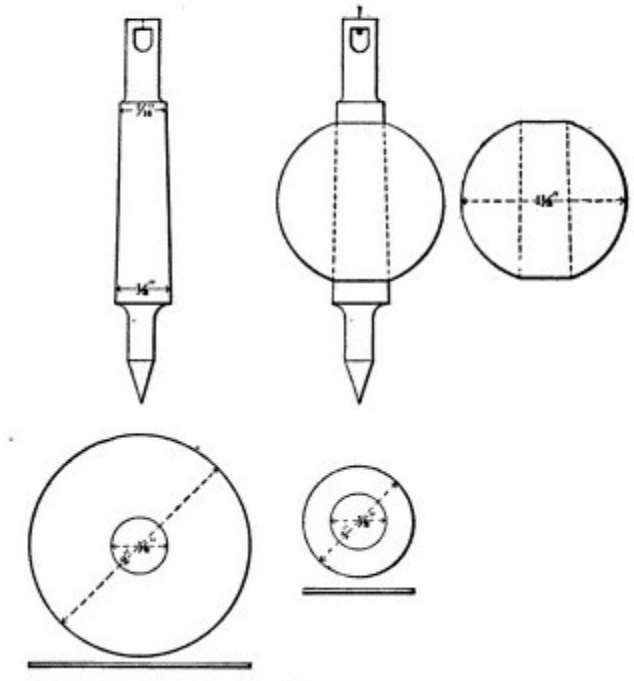


Fig. 47.

B 19 KNABEN BAUEN EINE SETZWAAGE 1894

Schon in frühester Kindheit wurden 1894 die Knaben angeleitet Werkzeuge, auch Messwerkzeuge wie Setzwaagen zu bauen.

Des deutschen Knaben

Handwerksbuch.

Praktische Anleitung

zur

Selbstbeschäftigung und Anfertigung von Gegenständen auf den Gebieten der Papparbeiten, des Formens in Gips, der Metallarbeiten, der Schnitzerei, der Tischlerei, Zimmermannsarbeiten, Drechslerei, Laubsägerei, zur Herstellung von Tierbehältern, Fahrzeugen, naturwissenschaftlichen Apparaten 2c.

Von

E. Barth und W. Niederley.

Neunte, vermehrte und verbesserte Auflage.

Mit vielen Abbildungen und vier farbigen Tafeln.

Bielefeld und Leipzig.
Verlag von Velhagen & Klasing.
1894.

IX. Abschnitt.

Herstellung physikalischer Apparate und Modelle.

Viele der hierher gehörigen Arbeiten sind von der Art, daß sie in die verschiedenen Handwerke, welche bis jetzt behandelt worden sind, eingreifen und die geschickte Handhabung der bei denselben vorkommenden Werkzeuge voraussetzen.

Als Material sind hübsche, kantig geschnittene, ungefähr 2—3 Centim. starke Hölzer erforderlich, die man sich, da es außerdem noch genug zu thun gibt, am besten vom Tischler zurichten läßt.

A. Zur Mechanik.

1. Modelle und Apparate mit Benutzung verschiedener Kräfte.

Die Setzwage (Abb. 1). Um dieses einfache Instrument herzustellen, macht man sich ein gleichschenkliges Dreieck aus Holz von 3 Centim. Stärke, dessen Grundlinie 2—3 Decim. beträgt. Das Brett wird an der unteren Seite schön eben gehobelt, von der oberen Spitze des Dreiecks auf die untere Seite eine senkrechte Linie gezogen und dieselbe mit der Säge zu einer Rinne eingeschnitten. Unten an dieser Linie ist ein Ausschnitt anzubringen, welcher mit dem Hohlmeißel oder mit der Raspel ausgearbeitet werden kann. Oben an der eingeschnittenen Linie wird ein Faden mit Senkblei befestigt, welches letztere in den hergestellten Ausschnitt so hineinpassen muß, daß es sich in demselben frei bewegen kann. Das Senkblei selbst besteht aus einer Kugel, die aber ohne Kugelform nicht herzustellen ist. Man kann sich aber auch ein eckiges Stück gießen und rund schneiden, weil, wenn man es feilen wollte, die Feile verschmiert würde. Die Form dazu wird aus starkem Papier gemacht. Der Henkel, welchen die Kugel dann zu bekommen hat, ist aus Draht zu biegen und in das Blei vor dem Festwerden hineinzustecken.

Abb. 1.

B 20 DOPPELSENKEL 1856

Eine spezielle Art des Abstandshalters. Hier wird aber nicht der Abstandshalter an die Wand gedrückt, sondern die gesamte Schnur von Hand an die zu überprüfenden Teile angehalten.

ELEMENTE

DER

VERMESSUNGSKUNDE

VON

Dr. CARL MAXIMILIAN BAUERNFEIND,
Professor der Ingenieur-Wissenschaften und der Geodäsie in München.

ERSTER BAND.

DIE MESSINSTRUMENTE UND IHR GEBRAUCH.

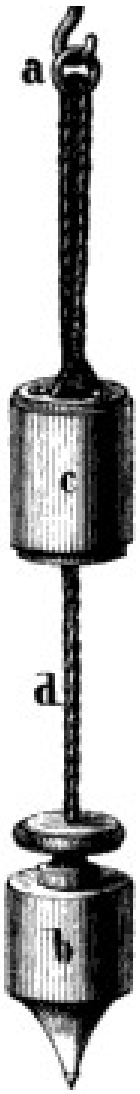
MIT 250 HOLZSCHNITTFIGUREN.

MÜNCHEN.
LITERARISCH-ARTISTISCHE ANSTALT
DER J. G. COTTA'SCHEN BUCHHANDLUNG.
1856.

§. 33.

Der Doppelsenkel.

Dieser Senkel, welcher in Fig. 11 abgebildet ist, dient im Allgemeinen dazu, zwei durch kein Hinderniss getrennte Punkte in eine lothrechte Richtung zu bringen, wie z. B. eine bestimmte Stelle eines Messinstruments und einen auf dem Felde bezeichneten Punkt. Er unterscheidet sich von dem einfachen Senkel nur dadurch, dass er leicht aufgehängt und nach Belieben verlängert oder verkürzt werden kann. Zu dem Zwecke befindet sich die metallene Birne (b) an dem einen Ende einer seidenen Schnur, welche durch einen mit der Birne gleichschweren Messingcylinder (c) und einen zum Aufhängen dienenden Ring (a) geht, während das andere Ende dieser Schnur in dem genannten Cylinder festgehalten wird. Sein Gebrauch versteht sich von selbst.



C ZUSAMMENFASUNG

Lieber Sammlerfreund,
Du siehst, es gibt eine Menge an Hintergrundinformation über das Senklot und verwandte Werkzeuge.
Nicht alle sind „technisch“, manche bringen einen zum Lächeln, manche sind schlicht Unsinn, aber alle sind ein weiteres Stückchen in unserem „Puzzel“ mit dem Namen „DAS SENKLOT“. Obwohl wir schon eine Menge Teile gefunden haben, es gibt noch genügend unentdeckte Teile.
Wenn Du eins dieser Teilchen finden, melde Dich einfach.

Wenn Du Zusatzinformationen zu diesem Artikel hast, lass es mich wissen. plumbbobwolf@t-online.de

Danke
Wolfgang Ruecker

Dieser Artikel ist aus der Reihe der monatlich heraus gegebenen „WOLFS SENKLOT NEWS“

Mehr Information gibt es unter www.plumbbob.de