SKID STICK

NEWSLETTER OF THE UK SLIDE RULE CIRCLE

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Editor:
Colin Barnes
189 Mildenhall Road
Fordham
Ely
Cambs. CB7 5NW

Tel: 01638 720317
Email: colinabarnes@talktalk.net

www.uksrc.org.uk

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EDITORIAL

Welcome to the new look newsletter. At the start of a new year it seemed an appropriate time to take a fresh look at our newsletter. Our newsletter is now fourteen year's old and we haven't changed the format since Issue 7 so it is probably about time. The changes are minimal but I hope readers will find it acceptable. Please let us have your thoughts.

Although somewhat late I wish all a very happy, prosperous and healthy 2013 and I would also thank all those who sent me cards at Christmas. I am sorry that I am not able to return the compliments of the season to all personally.

Looking back at 2012 I can report that the world didn't end on the 21st of December despite it being my wife's birthday! Fortunately I had not taken the doom mongers seriously and had bought a present and a card.

On the slide rule front, IM 2012 was the big event, a report on which was included in our last issue. It is appropriate to again thank all those who assisted in making the meeting a success. It is also necessary to apologise for the selection of our accommodation, the Campanile Hotel, whose organisation left so much to be desired. Since the meeting I have heard of many shortcomings that I was not aware of at the time and which horrified me further. I cannot blame those of you who wrote to the management (in fact I encouraged it), however, to the best of my knowledge there has been absolutely no response to emails and letters of complaint. A "comment" on the hotel's website painted a glowing report of the venue purporting to have come from one of our European colleagues. I find this difficult to believe and suspect it was posted by a member of the hotel staff in order to divert criticism.

Our other great advance in 2012 was the commercial printing of the Slide Rule Gazette (and the Proceedings of IM2012, printed copies of which have sold out but a CD is available) which despite the slight increase in price seems to have been a great success. The foray in the world of printing started with an experimental run of twenty copies of a short novel for a friend and a run of copies of my Otis King book. The service was so good that we took the plunge with the Gazette and Proceedings. I have since had a small personal work printed and I have been more than satisfied. If anyone has a book in them that they would like printed please contact yours truly for further information.

It continues to amaze me that so many new avenues of exploration in the world of slide rules continue to appear and how they so often lead to a new and interesting line of enquiry. A typical example is the enquiry from Colin Tombeur in this issue regarding the magnifying cursors of Mautner of Dresden. I hope that those who can give us feedback on this and other enquiries continues as usual.

Pondering as one does (occasionally) on the strangeness of language the following totally irrelevant thought crossed my mind. We can be "on the ground" or "in the air". This being true, where is "mid-air" where so much seems to happen?

Address Changes

Paul J Crowther

10 Rugby Close
Seaford
East Sussex
BN25 3PQ
e-mail (unchanged)

Ray Hems

7 Goldwell Drive
Newbury
Berkshire
RG14 1HZ
e-mail unchanged
Tel: 01635 524420

Derek Slater

12 Bright's Crescent
Edinburgh
EH9 2DD
email derek@slaterhouse.co.uk
Tel: 0131 662 9740

Polygraphs

The last Skid Stick had several pieces on Polygraphs. E-Bay had yet another for sale recently, this time a McKenzie-Lewis, see below.. This is the third type covered. We also had various responses from, you, the readers, see the following items.

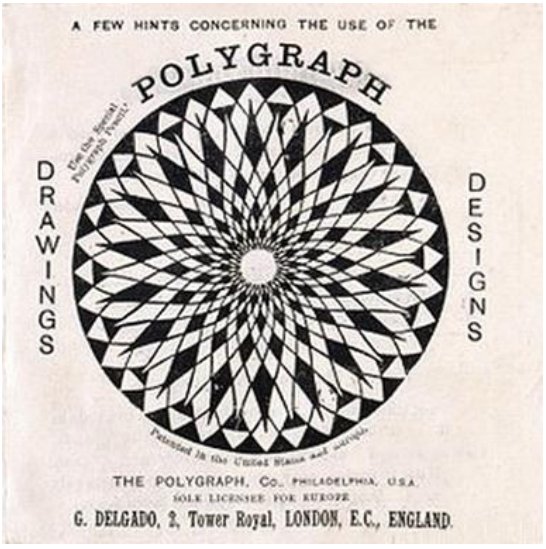
This one is advertised as being rather distressed, in a heavy metal case (10" x 7" x 5") which is surprisingly small. It has three tambours, two equipped with rather corroded pens (but no membranes). The timing mechanism is working as is the paper advance mechanism**,** although this latter is missing its winding key, but it is interesting to see how this one differs from the last. See: http://www.sciencemuseum.org.uk/broughttolife/objects/display.aspx?id=10706 for a description by the Science Museum (one amongst many) if you do a Google search on the subject.

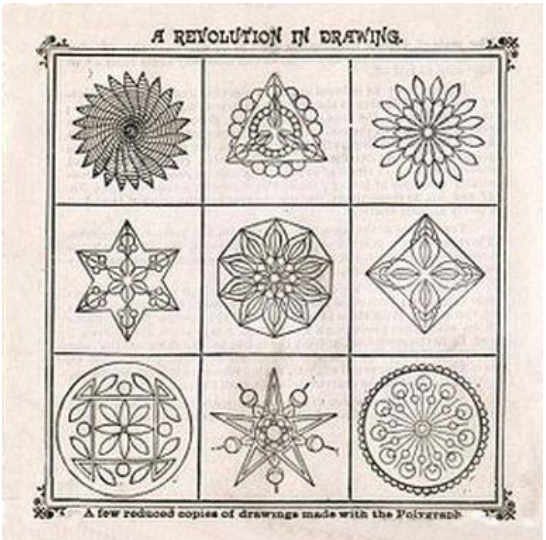
pmh

Regarding the "Polygraph" article, I would like to point out that a "Polygraph" isn't specifically a Lie Detector. A "Polygraph" is just Greek for something which writes multiple things; in the case of a Lie Detector, the term refers to the multi-pen recorder on which the Lie Detector prints its results. By a process of "synecdoche" (another fine Greek word), that part of the machine has become the name of the whole machine.

Jerry McCarthy

I have a "Polygraph" as pictured on page 6 of the October Skid Stick in my collection of drawing instruments. I have owned it for some years and don't remember whether it came in a set of instruments or I bought it separately. I don't have the instructions which came with it, but your article prompted me to investigate how it may have been used. It appears to have been intended more for constructing geometrical patterns than for technical drafting and this use is supported by two pages from the original instructions which I found on the internet.





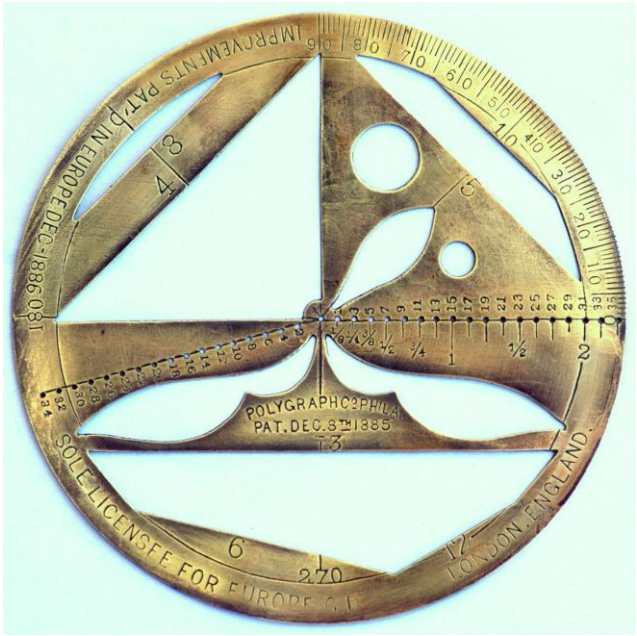
I am also attaching several photos of my instrument to show some details required for the following notes.

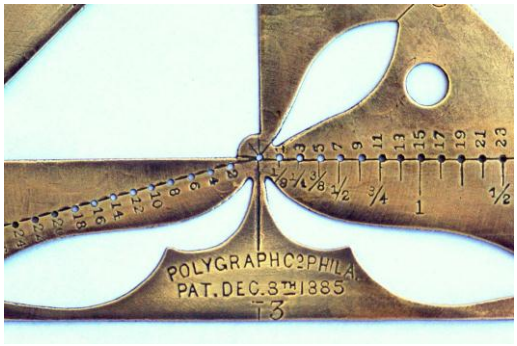
Some drawing/drafting uses are obvious, including the 90 degree protractor around one quadrant, the 1/2 inch and 1/4 inch diameter cut-out template circles, and the 45 degree triangles.

The two rows of small holes presumably are to be used in place of a compass, to draw whole or part circles, achieved by anchoring the central hole of the Polygraph with a pin, inserting a pencil point in the appropriate hole, and then rotating the pencil and polygraph. The row of holes running to the right (west in my photo) is spaced at 1/8 inch intervals from the central hole and stamped below the holes are the radiuses of some hole in fractions of an inch. The row of holes running to the left (WSW in the photo) starts off with a 3/16th inch interval, followed by 1/8 inch spacings, so provides radiuses in between the right hand set. The numbers next to the holes (1 up to 35 on the right and 2 up to 34 on the left) seem to be intended to order the holes in ascending radius and are not a measure of how many eighths or sixteenths are contained in each radius.

Of less obvious use are the straights labelled 3, 4, 5, 6, 8, 10 and 12. Their lengths correspond to the chord lengths of figures with 3 up to 12 sides which fit inside a 2 inch radius circle. To set out these polygons, a 2 inch radius circle must be drawn first and then the sides can be stepped off by aligning the Polygraph appropriately so that the two ends of the straight just touch the circle. This feature works as a substitute for the Circles feature on proportional dividers.

The various curve templates were obviously intended for drawing decorative figures as shown in the instructions supplied with the instrument.





I very much enjoy the Skid Stick. You do a great job. Keep up the good work.

Bruce Sandie (Melbourne, Australia).

I have a Polygraph. Mine has 'Sole licensee for Europe G D London, England' so George Delgado was presumably British. Whilst I do not have the instructions it is clearly a multifunction instrument. Around one quarter it has a protractor scale. The various straight lines round the inner circumference are for dividing a circle into a polygon with 3, 4, 5, 6, 8 or 12 sides (an inscribed polygon). Inserting a pin in the middle hole and a pencil through any of the small holes in two lines radiating from the centre enables a wide range of arcs or circles to be drawn with radii up to 2¼ inches. There are also small French curves. There is a modern reproduction made but it is not brass.

David Riches

Preston Calculating Rule

David Riches:

On page 10 you illustrate a rule erroneously called a Preston Calculating Rule. It is in fact a builder's universal scale rule. These appear in most drawing instrument catalogues from the late 19th century to the early/mid 20th and I have three examples shown on:

http://www.mathsinstruments.me.uk/page34html

- 12" boxwood and ivory ones, and a 6" ivory one. They had from 14 to 16 scales and were not easy to use. They were superseded by the Armstrong scale that had just 8 scales and was used by engineers, builders and architects. There was also an architect's universal scale rule that had even more scales than the builder's one. The scales on the rule are various fractional scales and those not on the edge had to be read/used with the aid of dividers. They are open divided - i.e. the smallest divisions are only shown at one end of the rule

Another out-of-sequence Fuller

Courtesy of Dave Nichols' eagle eyes comes a second example of an out-of-sequence Fuller calculator, keen readers (aren't you all?) will remember that in SS38, June 2011, we had an out-of-sequence example from 1902/03, now we have another example which appears to be well out of place in 1947/48. We have (from e-Bay) Fuller

9371/47, while on the database is a number of examples and their Type as listed below.

Dave speculates: "Perhaps Stanley had a batch of indices already stamped and some erk (fool) fitted the long indexes in a random fashion - after all, most of the late identified odd sequenced numbers seem to appear around the same period (47/48) which was not long after the introduction of the Bakelite versions. Were Stanley using up surplus, pre stamped, stock?" This is probably very near to the truth as 9371 which is a Type 1 Fuller and our database examples from 9290 through to 9325 are Type 2. This may be coincidental but one can see that a batch of Type 2 cursors had been stamped and then the next Type 1 had to follow the pre-stamped serial numbers but with an earlier date, as the long indexes were different between the two types.

9276/47 – Type 1
9290/48 – Type 2
9301/48 – Type 2
9324/48 – Type 2
9325/48 – Type 2
9371/47 – Type 1
9405/48 – Type 1

e-worm

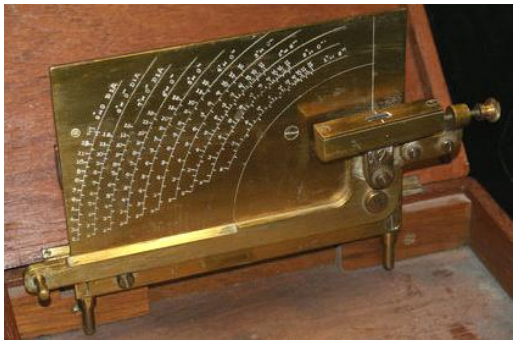
I thoroughly enjoyed David Riches excellent article "The Instrument Patents of William Ford Stanley" in the Scientific Instrument Society's June 2012 Bulletin, No 113, fortunately it is one of the ones made available for web access in each edition; something I have noted previously and would recommend (hence its inclusion in e-worm!) see http://www.sis.org.uk/images/bulletin/113/113_sis_bulletin_2012_june_riches.pdf

One or two surprises: I had never known that Stanley had a patent that preceded the Wynne and Watkins patents for a pocket watch style actinometer with sensitised paper included. Also have a look at:

http://www.earlyphotography.co.uk/site/entry_E100.html if you are interested in this sort of thing, there are so very many absolutely fascinating designs, (all incorporate some form of "slide rule") some of which are also shown on David's web site:

http://www.mathsinstruments.me.uk/page67.html and also in "Pocket Watch slide Rules"! The Stanley device and a version of Wynne's Infallible are shown below. I also liked the patents for automatically measuring the height of humans!

This rather splendid **"What is it"** type device was on e-Bay. It was advertised as an "Antique Brass Surveying Instrument", some 9½″ x 6″ complete with slightly larger mahogany box but lacking any makers or device name or instructions – any ideas what it is and how it might work? The arcs are calibrated from 1' 6″ to 9' and the first 3 are labelled "Dia" – (for Diameter?), and the arm pivots and there is a spirit level and a fine adjustment. It all fits onto something – bottom lugs.



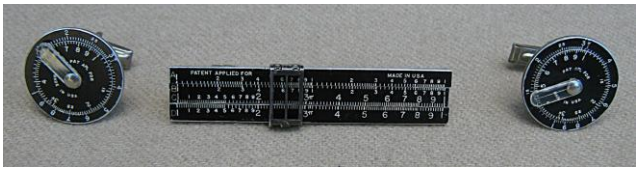
It never fails to amaze (and amuse, on occasions) just how our language has changed in meaning over what seems to be very few years. In particular one can think of the huge change in meaning of "gay"; so too with "green". Have a look at the 1966 advert from e-Bay, where the "green" was likened to a gardener's green thumb with the expertise offered via use of this slide rule being profit!

Neil Watson emails as follows: I suspect you will have seen this clip from http://www.numberphile.com/

already, but just in case here it is. This appears the only one of interest for UKSRC members the rest go into Maths stuff! Also http://www.wimp.com/oldcalculator/ Can you imagine using a CURTA in a Rally Car!
Awesome ears, or messy car?

Something slightly different – twice!

I am sure we have all seen, and possibly even own a set of slide rule tie-pin and/or cufflinks, I must admit to being the proud owner of various tie pins as well as cufflinks in plastic, silver and gold (plate!), and was particularly adamant that I wanted to wear slide rule cufflinks when daughter Suzanne got married last year – the cravat thingy did not need a tie pin, shame! The many variants have been featured in various articles[1] but I was particularly taken with the set that appeared on e-Bay last year with working circular slide rule cufflinks!



We have news of the latest updates to the "System Tombeur" juggling slide rules we were introduced to so memorably at the IM. Courtesy of David Rance we have available a picture of the latest device, and while you are at it, have a trawl through David's new and most excellent web site. It is always a special pleasure to give any web site with ownership by a UKSRC member – and this one is good – a plug! There are all sorts there to keep all entertained and it is obviously growing as we write:
http://sliderules.nl/index.php?p=slides&id_slide=265&id_maker=194#result

pmh

Replicas

I have always been extremely pleased that as a bunch of collectors we have not been be-devilled with having to watch out for forgeries – who would want to forge a Unique? But that is a silly idea, rather we do now have really excellent replicas of Thachers (one of which, made by David White in the USA, has featured on Rod's web site for some considerable time), see:
http://sliderules.lovett.com/thacherrepro/thacherrepro.htm
and now it is the turn of a Fuller's and Loga replicas made by Bob Wolfson to feature, have a look at:
https://sites.google.com/site/bobscalculatorsandsliderules/my-replicas/fullerreplica

Bob Wolfson's beautiful workmanship is absolutely incredible, and wandering through his web site is definitely very worth while. His re-scaled Thacher is an incredible piece of workmanship as indeed are all his replicas and should you wish one he will make you a replica Thacher. They indeed must classify as a proper slide rule – a Woolfson Thacher, Fuller or whatever. I wish that my simple bodgery where I repair and refurbish the odd bits and pieces was a small fraction as good as his marvellous workmanship! Very highly recommended. Now here is a challenge – also on his site are incredibly detailed instructions on how to make your own Thacher, and this allows anyone to produce one of these marvellous designs – let us know if you ever do make one, and we will publish with plaudits.

Pilot Balloon slide rules

There have been a number of Pilot Balloon slide rules sold on e-Bay in the last few months. These fascinating devices have been covered in a previous publication (see Procs IM 1999 page 85) in an article written by Hon. Ed. And I could not help but notice a fascinating web site covering the whole topic which gives credit to Colin for some of the data, see:
http://www.pilotballoon.com/pibalacc.htm.

My interest was rekindled when we were reminiscing at a recent meeting at my old alma mater, the Marconi Research Labs at Great Baddow, where these contraptions were used to fly radio sondes to check computer propagation models. One of my old colleagues was remembering having to shoot down a wayward balloon which was heading for a girl's seminary in a Muslim country. He could not remember why, other than rescuing the equipment would have caused considerable difficulty, he said!

pmh

Matters Arising

We do so like it when we get comments on anything within SS, keep them coming! From Jerry McCarthy comes a very pertinent comment on the "Polygraph" item, where he reminds us that a "Polygraph" isn't specifically a Lie Detector. A "Polygraph" is just Greek for something which writes multiple things; in the case of a Lie Detector, the term refers to the multi-pen recorder on which the Lie Detector prints its results. By a process of "synecdoche" (another fine Greek word – which I really liked. Ed!) that part of the machine has become the name of the whole machine.

Also on the subject is an example of an English version of the Polygraph from David Riches (see his excellent web site;
http://www.mathsinstruments.me.uk/page42.html
where it is noted that it was and improved and patented in Europe in December 1886.

Again on the same subject, Bruce Sandie also has supplied images of the instruction sheet.

The "Cubic Calculator" (SS42 p2) happened to be on display at the last Scientific Instrument Fair, and Colin and I were able to study it. The weighted arm at the left of the device is lifted and a sample of the material being

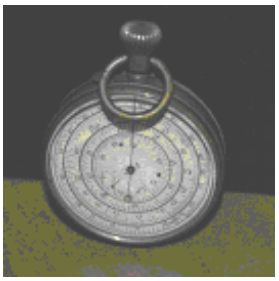
[1] "Slide Rule Tie Bars". Dieter von Jezierski. JOS V16; No 1, 2007. p33

"tested" is placed under the "disc" and the reading on the dial is then "translated" via the tables into a range of measures such as weight per unit area and so on. There were a number of separate tables allowing many things to be measured; sadly there was not enough time to understand all of them. The patent and its date remains a mystery.

Our thanks to E. Dean Butler, reference the item on Suxpeach and the Catholic Organon, on e-Bay, for £950 (still there!). He tells us that via Amazon, one can get An "Eighteenth Century Collections Online Print Edition" of this very interesting book for £14.01! He also tells us that he has a copy, and it is quite well done. It is reprinted from a scan – not the OCR methodology which frequently results in idiotic mistakes. See www.Amazon.uk and search for Catholic Organon, quite amazing!

A Classic Piece of Misinformation!

Worthpoint is one of many web sites that purport to add value for collectors. It advertised under "Calculigraphe" (below) from a 2011 e-Bay auction with the following description:
This Calculagraph is a device which mechanically calculates elapsed time between two events. Their best known, earliest use was as a means of tracking of table usage in pool halls. Later, until the advent of the digital era, they became the standard way to clock the duration of toll telephone calls. Henry Abbott, a watchmaker, invented the Calculagraph, and he made a career out of modifying and improving upon the original design. He obtained many patents; the first one specifically using the name Calculagraph was No. 583320, issued May 25, 1897.
The characteristic aspect of the machine's design is its automatic performance of elapsed-time calculations, as calculating the difference between two times manually is a tedious and error-prone process, and the machines quickly gained popularity. Abbott founded the Calculagraph Company in New York City, and later moved to New Jersey. The company is still in business, now known as Control Products, Inc.; however they no longer manufacture this particular item!! This particular item is in a brass case and has some wear expected for it's age. It does not appear to be working, although all the components are still in place. A really nice collectors items an something that looks really special [sic]. Very few of these to be seen. Initials FC with a castle between the initials on the calculator side.



A second Worthpoint description for a different Calculigraphe reads:
… reads Calculigraphe on one side and HC on the other. I was told it was made in Paris probably in the 1920s to 1930s and the HC stands for Halden Calculex.

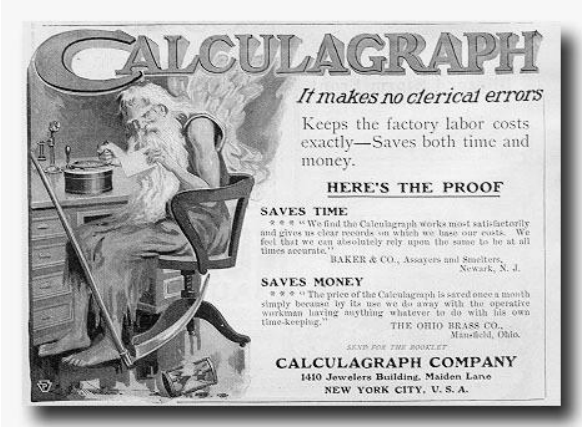
While both descriptions are clearly incorrect, at least in part, it was inevitable that the first with its references would start a few hares into motion: one to try and find out more about Henry Abbot; two: to see whether the Calculagraph he mentions is the device which we showed in SS39 in October 2011, and finally to try and find the patent mentioned.

From the "Judicial and Statutory Definitions of Words and Phrases" By West Publishing Company, Vol 1, 1914, comes an interesting definition of the device:
A "Calculagraph" is an instrument for automatically recording lapsed time and is used specifically in recording the length of time a long distance telephone has been used by the operation of a lever at the beginning and end of such use, and also the time of day when such use was commenced. Calculagraph Co. v. Wilson, 132 Fed. 20, 22.

The patent is American, interesting, and I now have a copy of that. The description is a pretty direct copy of the Wikipedia page, see:
http://en.wikipedia.org/wiki/Calculagraph

Yes, the picture in SS39 (repeated below) is also entirely relevant and was taken from an advert for the Calculagraph Company when they were still in New York. Wikipedia shows other Calculagraph products in a picture which might be from a San Francisco Museum.

There were lots of models of Calculagraph, and they appear to have been used world wide to log phone calls for many years – probably through to the digital age! There is stacks more on the subject, including more Calculagraph devices, references to Henry Abbott and some of his further 39 patents, including typewriters, between 1876 and 1942 on:
http://www.prc68.com/I/Calculagraph.shtml



I mentioned that the Calculagraph was used world wide, well you can see other relevant stuff from a Dutch Online Telephone Museum PTT web site see:
http://www.actw.nl/Testgereedschap/Calculagraaf.htm

Obviously Henry Abbot was quite a guy, an inventor and manufacturer who made his name in the watch and time keeping industry. His Calculagraph has provided an interesting diversion. I leave you to judge the usefulness of Worthpoint.

New versions of Pressler's INGENIEUR-MESSKNECHT

There have been new versions discovered of the delightful Pressler devices Wolfgang Irler introduced us to at IM 2012. Below is a picture of another similar 1852 device to those we were shown in the meeting, with many other pictures and details to be seen on:
http://www.peterdelehar.co.uk/page38.html

Wolfgang then goes on to tell me that he has a new rectangular device dated 1862. This one does not have graphical logarithm tables. I have a high definition pdf and cutting instructions from him should anyone like to make a reproduction similar to those available at the IM, see the paper (against card) reproduction below.

pmh

UKSRC Rarities Gallery

Rod Lovett

Over the past few weeks, after a very shaky negative start, the OS has got its act together concerning what they now call their Rarities Gallery rather than what I originally called a Rarities Archive or Special Items Archive. I have been in continuous discussion with Ted Hume and Richard Davis over their requirements.

Since their requirements were not incompatible with the way I envisaged the development for the UKSRC, I developed the project for the UKSRC in parallel with one for the OS. (The OS operation is totally separate from the UKSRC one) The OS registered a new domain name (http://osgalleries/org) for their gallery which is now hosted on my machine. However, they are still trialling the software so their gallery may not yet available for viewing.

On the UKSRC side, I've started creating a gallery just by using some rules from my own site. It can be viewed at:
http://uksrc.org.uk/uksrc/index.html
Clicking on "Complete Gallery" displays alphabetically all the rules currently in the gallery. (As the gallery grows, this will take a significant time to load so I have arranged for this to load in its own window) Thus, searching etc, can be performed in the original window whilst the gallery loads.

Rather than allowing users to add their own entries it is felt necessary to have some form of vetting process in order to avoid the inclusion of images that cannot be viewed in decent society and to avoid repetition.

I would therefore prefer to add the entries myself. Members who have interesting, unusual, rare and obscure artefacts are invited to submit them to me by email or on CD/DVD. I believe the UKSRC can create a most impressive Gallery

rod@lovett.com

Adding & Subtracting with your Slide Rule

Trevor Catlow

Everyone knows that slide rules are for multiplication and division. They do not do addition and subtraction. Wrong! They do! Here's how.

I might be teaching grandmother to suck eggs. If so I apologise. But I recently came across a short piece in an old (1943) Faber Castell slide rule manual (in German) which caught my eye because I had not previously seen such a topic documented. I paraphrase the article:
You need to use the formula:

$$a \pm b = b(a/b \pm 1)$$

So, to add 17.6 (a) and 11.4 (b), divide 17.6 by 11.4 on your trusty slide rule to obtain 1.545, add 1 (to get 2.545) and multiply by 11.4 to get 29.

To subtract, simply subtract 1 instead of adding. Here you get 0.545 which, when multiplied by 11.4 gives you 6.2. QED.

OK, so you do need to add or subtract 1 at the intermediate stage. And no-one is suggesting that you do it this way in practice. But it's an interesting idea don't you think?

The manual goes on to point out that the method works also for other functions of a and b such as squares and square roots, which the usual A/B/C/D arrangement of scales on a slide rule makes particularly convenient. For example:

To add the squares of 12 and 5, find 12/5 on the C/D scales resulting in 2.4. Square this result in the usual way by transferring to the A scale (5.76), add 1 (6.76) and multiply this on the A scale by 5 squared (25) to give 169. This takes just three operations of the slide rule. Pure magic.

Mautner, Dresden – Cursor Makers?

Does anyone have any information on a company called Mautner based in Dresden, Germany, particularly in relation to slide rules and cursors?

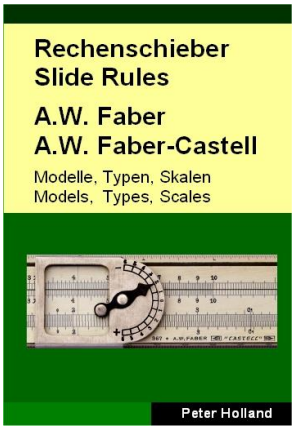
I recently came across this magnifying cursor model M25K made by Mautner on a 1937 Faber-Castell 1/87/387, although the part plastic construction suggests that the cursor is a much later addition - 1950s or 60s? The plastic, steel and glass design is quite sophisticated, with the cursor glass (with 1 full and 3 part hairlines) and glass lens folding into the supporting plastic 'lid'. Whilst it has its own box, the cursor will store folded down and protected on the slide rule, from where it will spring up and into position. The lens is approx. 35 x 40mm and stands 33mm from the rule.

The only text on the cursor is the makers name, the model is identified on the box and in the small information leaflet printed in German. A quick internet search throws up other optics made by Mautner but nothing relating to cursors or slide rules, and from my limited German I can't even tell if the company still exists – can anyone help?

Colin Tombeur
countbelmiro@btinternet.com

Bookworm

Slide Rules: A.W.Faber/A,W,Faber-Castell
Peter Holland in collaboration with Dieter von Jezierdki, Günter Kugel and David Rance
176 pages, 6th edition, A5 hardback.



Many readers will be familiar with Peter Holland's earlier editions of this dual language (German and English) work. This latest excellent sixth edition incorporating many updates is now extended to 176 pages with new chapters and improvements including:
- series 20/xx describes now 16 different models; until now it was only one
- calculating devices by Faber-Castell which are no slide rules are also incorporated
- historical advertisements for slide rules are reprinted on some pages
- a chapter on the company history has been added

This most comprehensive book is to be highly recommended to all collectors including those who have

earlier editions as it adds much to our knowledge and will prove to be an essential reference work.

New or updated sections include:

Summarised cross-reference of major types:
6.1 All Darmstadt slide rules
6.2 All Electro slide rules
6.3 All Merchant slide rules
6.4 All Rietz slide rules
6.5 All slide rules with an Addiator
6.6 All Desktop and 'oversized' slide rules
7 OEM Slide Rules for other manufacturers
Cases (completely revised)
12 Cursors (completely revised)
13 Brief company history
14 Faber-Castell on the world stage
14.1 Sales Agents worldwide in 1911
14.2 Foreign-language instructions

Full and detailed information can be found at:
http://www.peterholland.de/fc/

The price of the book is still 15 Euro (ca. 20 USD) for international shipping by air mail (within Germany it is 13 Euro).

A Maudlin & Monstrous Pile
Kathryn Morrison

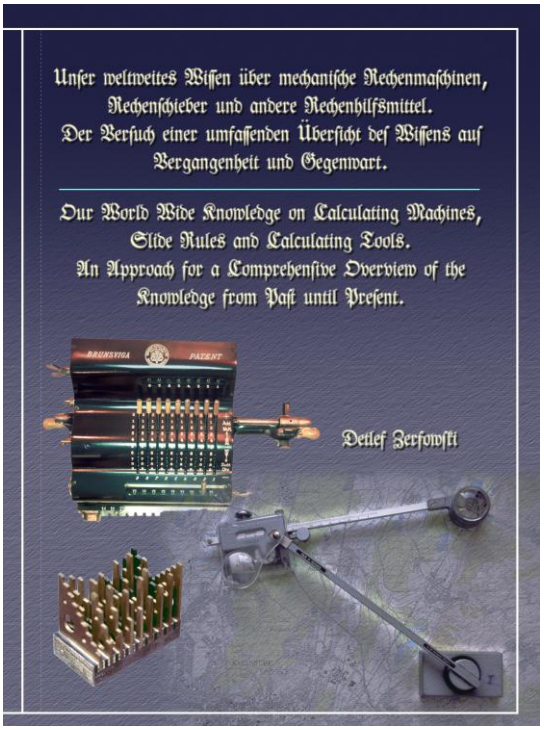
Colin Tombeur has discovered this article on the early background history and an architectural appraisal of Bletchley Park before and during its time as Station X. In pdf format it can be found at: http://www.english-heritage.org.uk/content/imported-docs/p-t/thehistoryofthemansionbletchleypark.pdf

During his research Colin also found:
The National and International Value of Bletchley Park
A Platform for Discussion and its future
July 2005
Another document that may be of interest to members. It can be found at:
http://www.english-heritage.org.uk/content/publications/publicationsNew/national-international-value-bletchley-park/bletchley-values-paper.pdf

"Unser weltweites Wissen über mechanische Rechenmaschinen, Rechenschieber und andere Rechenhilfsmittel.
Der Versuch einer umfassenden Übersicht des Wissens aus Vergangenheit und Gegenwart."
"Our World-wide Knowledge on Calculating Machines, Slide Rules and Calculating Tools.
An Approach for a Comprehensive Overview of the Knowledge from Past until Present."

By Detlef Zerfowski

This "Magnum Opus" – in all senses of the word - was advertised in the Proceedings of IM 2012, and we were able to study copies at that meeting. I now own one copy. Zerfowski's 1574 pages and 10 lbs in weight of complete and comprehensive Bibliography, presented as lists of documents and articles, lists of patents and registered trademarks is monumental, magnificent and wide-ranging. The work is mind blowing, and impossible to come up with superlatives for a work that the author tells us has taken over 10 years to expand from the relatively paltry 199 pages of A5 first edition originally published in 1999.



The contents are broken into 3 major sections – Bibliography, patents and registered designs, each with further sub-divisions into Discrete Calculating Machines, Slide Rules etc., Planimeters and Other Analogue Machines. The countries of most of the patents under these headings are Germany, Great Britain, USA and also a miscellany of France, Austria, Switzerland and various other countries with single figures of examples. I know of no other similarly comprehensive reference! To obtain a copy you must contact Detlef Zerfowski, I suggest e-mail as a start: Detlef@Zerfowski.com to find out latest on prices and delivery. Truly a mammoth reference work.

Spring Meeting
Sunday, April 21st 2013

David Nichols has kindly "volunteered" to host our spring meeting. The usual arrangements apply, arrival 10.30/11.00am with departure at approximately 4.30pm. A contribution will be requested to cover cost of lunch. Please be sure to notify Dave of your intention to attend at least a week in advance. This is **important** as, although entry of his postcode in your GPS, takes you to the right area, Dave

will provide detailed instructions for the final stretch when you contact him.

As a theme for the meeting we propose Tomlinson's paper making rules. Please bring any example you have so that we can make comparisons of the various types. Of course also bring any other interesting or recently acquired items you would like to display.

David Nichols
36 Sheep Street
Winslow
Bucks. MK18 3HN
01296 715676
uksrc.membership@btinternet.com

Facts of Life

An on-going exchange of comments in the Daily Telegraph regarding the choice of women to follow a career or have babies elicited a response in Judith Woods' column on December 29th. Her article starts:

"Hilary French put down that slide rule and go to the head's office. Oh you are the head. In that case I want to see you doing circuits of the all-weather pitch in your power suit and heels"

Musings 43

Peter Hopp

Hopefully you all survived the Fester Season, and that Santa was kind? Every good wish for a happy and healthy New Year to all!

I can't be the only one who gets aerated over the inaccurate usage of 'Vintage', 'Antique', 'Veteran', 'Rare' and so on. You might well say: "what's in a name?" A rose by any other name is as sweet – blah blah blah! Well, perhaps it's not only me, but a lot of us. These are all adjectives added to descriptions in e-Bay – and at antique and other fairs, describing not only slide rules but other antique objects, in most cases inaccurately. Now this is not just me being a miserable old so-and-so, but, for instance, I can not ever see an Otis King being either 'Vintage' or 'Antique', and, personally, I wouldn't call it 'a lovely old thing' nor is it 'rare' either! There is an e-Bay 'Comment' thread that goes back almost to 'vintage' with one comment I particularly liked: *"However, on e-Bay "vintage" often seems to mean anything that was purchased less than 24 hours ago, is dirty and worn, or looks like it might be old if you don't know anything about history and squint really hard".* Likewise there are definitions of 'vintage' as anything older than 25, 40 or 50 – take your pick, but antique is generally agreed as over 99 or 100, I shall have to tell Junior Management that she is vintage and then duck! As you can see it is a vexed question and indeed it is not only me!

Continuing this thread – very relevant with our new UKSRC Rarities Gallery – is the over-use of the word 'rare' which is almost as bad as 'vintage' as it is virtually meaningless. What exactly is 'rare'? Wikipedia comes up with only two definitions that hold water in my view: Rare species: a conservation category in biology designating the scarcity of an organism and implying a threat to its viability, and Rare, a particular temperature of meat. Neither relevant to slide rules! Certainly I would very much hope never to see either a rare or indeed a vintage Unique, which seem to proliferate on e-Bay. How many sell, I wonder? On a slightly more serious note, the ability to define 'rare' in slide rule terms has defied the collecting fraternity since I started collecting, perhaps I can throw a definition into the ring as an "Aunt Sally" and see what the "pipple" (courtesy of Tony Blair (yeuk) and what he used to call the great unwashed, of which I proudly call myself one, unwashed that is, I was never a "pipple"! I think. How's about any slide rule where there are fewer (is that correct Hon Ed.?) [*Yes. Ed.*] than say three examples is rare. Anything greater then that and, say, 10 examples becomes "unusual" and anything over 10 is common as muck! p.s. I like Rod's definition on the UKSRC Rarities Gallery!

Irritating and meaningless verbiage!

"*mechanical calculator anachronistic"* Quote: The Sumlock Comptometer represents an anachronism driven by economics, being manufactured as late as the 1960s when electronic calculating machines existed but were not generally available. See also:

http://www.oobject.com/category/mechanical-marvel-calculators/

which has many other fascinating lists available to waste time on. It must be that I am really getting to be a grumpy old man, (was I ever not grumpy asks Junior Management?); but this sort of verbiage I find really ever more irritating!

On the other hand, I love clever quotes like: *"technology is neither good nor bad nor is it neutral."* Melvin Kranzberg (22.11.1917 – 6.12. 1995) was a professor of history at Case Western Reserve University from 1952 until 1971; also a Callaway professor of the history of technology at Georgia Tech from 1972 to 1988. His fascinating six laws of technology state:

1. Technology is neither good nor bad; nor is it neutral.
2. Invention is the mother of necessity.
3. Technology comes in packages, big and small.
4. Although technology might be a prime element in many public issues, non-technical factors take precedence in technology-policy decisions.
5. All history is relevant, but the history of technology is the most relevant.
6. Technology is a very human activity - and so is the history of technology.

I like Kranzberg's definitions; they make a lot of sense. I have ranted about such as these before, both good and bad, I'm sure there will be even more in forthcoming Musings!

The image above has nothing to do with slide rules but hopefully will make a pleasant change to slide rule worthies and may remind computer users of a "certain age" just how frustrating the Teletype 33 interface could be!

[Nor does this but I hope it puts a smile on your face. Ed.]

Weird animation

Have a look at http://vimeo.com/14151775 for a very fine piece of animation of an Amsler planimeter in action, and if you are of a mind, some more of Daniel Farah's rather weird videos can be seen on Vimeo – which was new to me as a web resource.

Different Addiator

I saw the following rather nice device on e-Bay last year and it really appealed to me, whether it can truly be classified as an Addiator is open to interpretation. Nevertheless, the 21cm (8¼″) device was made by Bergmann-Universal-Gesellschaft in around 1922. The patent (DE322508/1919) for this machine was issued to Oskar Rother and Karl Heindel of Dreden. This particular example is stamped B.U.G CALCULATOR 5777 (a serial?) The ever excellent Rechnerlexikon[2] web site has the patent and further examples, with other names. It sold for over £150.

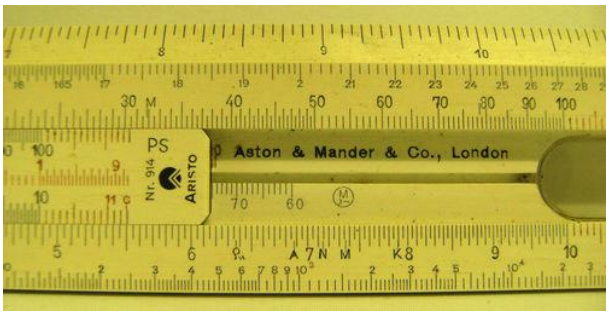
[2] http://www.rechnerlexikon.de

A Great Device

The same place as all the others had this delightful pencil slide rule that actually looks as if it would both be able to be used both as a pencil as well as performing calculations, which so many other similar devices do not. This Makeba Kombinator slide rule pencil was made in the DDR sometime in the 1950's.

Strange bed-fellows?

Also spotted on e-Bay was a side rule with most unusual markings that could only imply what, to me, was a very strange alliance. See below.



There are no obvious dates quoted for the rule, but a bit of investigation shows that the Aristo type number (914) was used between 1936 and 1957, and the logo between 1939 and 1952, all considerably later than I would have guessed for Aston & Mander, perhaps someone knows different? The box for the slide rule is black cardboard pull-apart tube, which is itself pretty unusual for an Aristo box.

Displays

I'm not sure about your parts of the world, but here in darkest Essex the local Library is <u>not</u> a place that welcomes displays of any sort from "external agencies" – they either try and charge for the pleasure (you might want to sell something) or else start quoting "Elf & Safety" mumbo jumbo at you! Whatever, my efforts at getting the local "hanging lady" in the Library (the name might tell you something) to let me put on a display of slide rules for the general enjoyment and education of the local populace have come to nothing. So it was particularly galling when Clay Castlebury of the OS sent me a picture of a trolley he has which is used to "share" slide rules and other such things at various local libraries in his US neighbourhood.

It might also be an idea for displaying stuff at home, though I know one wife who might not be that keen to have such a device cluttering up our home! Problem here is that if it were possible to have such a display in the library, the local light-fingered brigade might be away with not just the contents but the trolley as well! An excellent idea.

The Mathematical Instrument Maker

On the front cover of TATHS newsletter No. 66 of Autumn 1999 was the following rather nice illustration of a Mathematical Instrument maker.


The Mathematical Instrument Maker.

It comes from "The Book of English Trades and Library of the Useful Arts", printed for Sir Richard Phillips and Co., London, 1824. It carried the caption: "The Mathematical Instrument Maker, makes telescopes, microscopes, spectacles, opera-glasses, reading glasses;" I am always intrigued by such images and always have a look at what instruments the maker is seen to be making – I have yet to find a slide rule in the wares on show! And does he not look a real grump?

News from TNMOC

9 January 2013

Production begins to recreate the 1940's EDSAC, the first general purpose computer for users

This week sees the production of the first replica components for the recreation of EDSAC, the computer that 63 years ago made general purpose computing available to users for the first time.

The highly ambitious project to build a working replica of EDSAC was first announced twelve months ago and is scheduled for completion in 2015. A display of original EDSAC artefacts can now be seen by visitors to The National Museum of Computing where the EDSAC recreation is to take place.

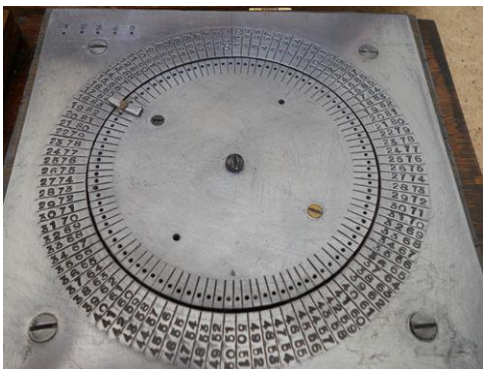
Rest of the story here:
http://www.tnmoc.org/news-releases/production-begins-recreation-edsac
and BBC video here:
http://www.bbc.co.uk/news/technology-20949562

What is it?

Another Unusual Calculating Device

Featuring on e-Bay at the end of 2012 was this most unusual contraption, advertised, so very originally, as a "Vintage Calculator Calculating Device"!

It consists of 2 square stainless plates 11cm x 11cm mounted on two raised platforms in a thin box. There is a centre revolving dial with a pointer and tiny peg holes around the edge. The outer part has 2 rings of numbers marked from 1-100 in opposite directions. In the top left corner on each plate are 5 tiny peg holes numbered 1, 2, 3, 4, and 5. Any ideas?



England—Australia In under Seven Days!

To sum it all up, England was left at 10.30 p.m. on Thursday, October 12, and Australia reached at 4.15 in the afternoon (G.M.T.) of Thursday, October 19, which is a total time of 6 days 17 hr. 45 min., for a distance of just on 10,000 miles. The actual flying time was about 115 hr. With the aid of a little mental arithmetic, and/or a **slide rule**, it will thus be found that in 162 hours, the time taken by the flight, 115 hours were spent in the air..

Flight Oct 26, 1933

[*How times change. Ed.*]

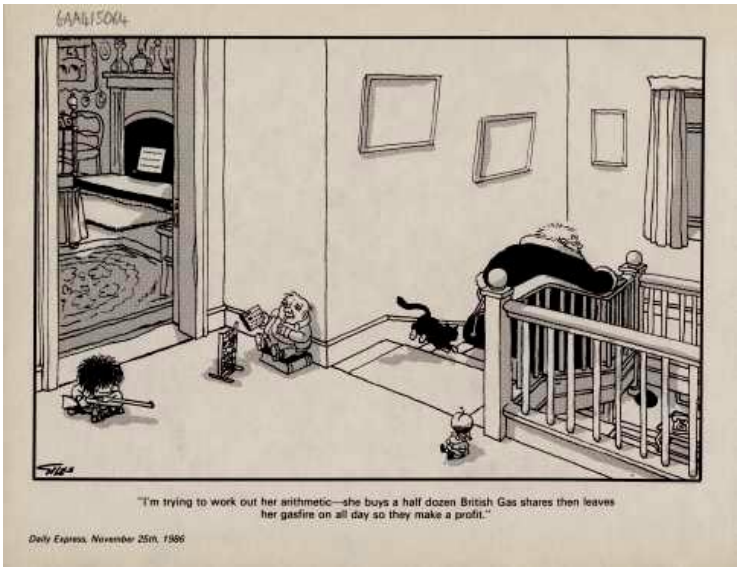
Sexist Slide Rule

People hark back to the "good old days" but were they always that good? I always have terribly mixed feelings when I look at pictures that might be looked at as sexist or exploitative – certainly at this far removed time from when they were originally taken. There is then part of me that says that maybe people were happy to be exploited, providing it was mutually acceptable, and the other part that says that perhaps we are better off not doing whatever that exploited the people….

So have a look at the of "People and Slide Rules" pictures and see whether you think they are sexist and/or exploitative:

The pictures were for Miss Industrial Engineer 1958, and she is about to be presented with a commemorative slide rule (Wow!) at the American Institute of Industrial Engineers week, I would guess at some trade show. The gent in the middle is worth the pictures alone! I also like the way she is "holding" the slide rule. It bears thinking about that the unknown attractive young lady is in all probability now well into her 70's, and hopefully still has the slide rule!

This set me off on one of my hobby horses, I am a huge fan of the late cartoonist Carl Giles of the Daily and Sunday Express, and had always wondered whether any of his cartoons featured a slide rule – it was a great day when I found a slide rule in a Tom & Jerry cartoon! Anyway, this year's Giles Annual pointed me at the British Cartoon Archive and their web site www.cartoons.ac.uk which holds over 8000 of his cartoons amongst many others. The short answer is that a slide rule never featured, but an abacus featured at least twice, which is a real shame! See right.



The 2012 cartoon below is amusingly ironic and might be a typical reaction by some of today's yoof! The shame is that most would not know revolutionary; it would just "Do their heads in!"