



THE
OUGHTRED
SOCIETY

Newsletter

February /March 2017

From Your Newsletter Editor - Ed Chamberlain



Greetings from New Hampshire Winter is slowly expiring here. Two weeks ago we had our last big snow storm. . . . 30 cm of wet, heavy, wind-driven snow. Now we are having lots of sun and warm weather. The good news is the frost-heaved bumps in the paved roads are subsiding and the Town road department is taking down the 'Frost Heave' warning signs. The bad news is that the unpaved road that leads to my house is turning into mud, and the Town road department is putting up signs limiting the vehicles to automobiles and light trucks. Ruts caused by autos are getting deep enough to cause cars to 'bottom out' on occasion. The days are getting longer, the mud season will end, and we will soon take the snow tires off of our cars. For now, snow tires help drive through the mud!



It is good to have friends during mud season ☺

The topic of slide rules has come to my mind as there is to be a Spring meeting for the Oughtred Society in Las Vegas on April 29th, and I must finish this newsletter and a paper this month on 'Slide Rules as an Art Form' for the IM2017 meeting next September 22-23 in Bonn, Germany. Not many think about the artistic qualities of slide rules, but there are many with artistic flourishes. Some slide rules have been incorporated into paintings and sculptures. And in displays, they can be arranged in a mix of rectilinear, circular and cylindrical types to create a sort of 'still life' with a composition of mixed elements. See my contribution later in this newsletter for some examples.

Note in this issue that four meetings for slide rule collectors are being planned, and one in Germany was just recently held:

- 1) **Spring gathering of the UKSRC Slide Rule Circle** will be held at Dave Nichols home, Sunday, April 23rd.
- 2) **Annual meeting of the Oughtred Society** will be held in Las Vegas on April 29th.
- 3) **IM2017** International Meeting in Bonn, Germany, September 22-23, 2017.
- 4) **IM2018** International Meeting in the UK, September 21-22, 2018. The meeting place will be in **Stratford-upon-Avon**. Details will be available later in this year.
- 5) **Spring meeting of the German language RST** in Bielefeld, Germany was held earlier in April. See report by Karl Kleine below.

As before, I encourage all members to attend these meetings. They are great opportunities to meet collectors with like interests, to learn of some latest findings, to swap stories and to trade and purchase special slide rules for your collections. . . . This is the last call for the April 29th Las Vegas meeting. It will be a great opportunity to visit Las Vegas, the Hoover Dam (and its spectacular new bridge) and the nearby Grand Canyon. Best of all, it will be the shoulder-season, with bargain flight prices and small crowds. . . . Then next fall, there is IM2017, the international meeting in Bonn. It will be a great opportunity to see the unparalleled slide rule and calculator displays at the

Arithmeum museum, as well as to meet with collectors from all over the world. Last year's meeting in Italy had participants from as far away as Australia. I especially encourage North Americans to attend. Details follow for these meetings.

Reported by Ed Chamberlain

From the President of the Oughtred Society – Bob De Cesaris



Bob De Cesaris

Only two weeks remain to sign up for our **Oughtred Society Annual Meeting** set for April 29, in Las Vegas, NV, at the National Atomic Testing Museum, adjacent to the UNLV campus. Our host hotel will again be **Four Points by Sheraton Las Vegas East Flamingo**, across the street from the museum. The meeting will feature presentations, an auction featuring unusual items from the **Thomas Wyman Collection** and other members, and the opportunity to meet with fellow slide rule and mechanical calculating machine enthusiasts, many of whom are experts in their areas of interests. Optional group dinners will be held on Friday and Saturday evenings at the hotel as in the past and catered by the Italian restaurant Buca di Beppo.

The International Meeting 2017 (IM2017) will be held on September 22-24 at the *Arithmeum at the University of Bonn in Germany*. This year's theme will be "*Calculating in Everyday Life*" with a focus on how we perform routine computing tasks and the devices that we use, and the impact this has on our daily lives. As noted on the IM2017 web page, the intent is to focus on the interesting basics, and not necessarily on specialized instruments for a technical or scientific application, but, as in previous years, the conference is open to all interesting submissions related to calculating and the history of calculating devices. One of the highlights of this year's International Meeting will be the opening of the special exhibition "*Old German Slide Rules*" at the **A Beautiful Display Piece** Arithmeum.



Welcome to new Oughtred Society Board Members **Louis Gotlib** and **Jim Bready**. Both bring intense interest and a great deal of experience with slide rule research and numeracy education to the Board. Jim has been an OS member since 1995 and his many years in UK qualifies him as an expert in boot sales and boxwood slide rule collecting. Most recently, he has been working on perfecting his enormous circular slide rule, Colossus, and plans to bring his latest improved version to our Las Vegas meeting for display. Lou has been a member since 1997, has a keen interest in slide rules related to Chemistry, and, as an educator, will continue to assist us in getting our numeracy educational message out to the next generation.

We are in process of finalizing the selection of many interesting pieces from the Wyman collection for sale at the Annual Meeting. Many of the items that remain can be found in the Wyman Collection in the Oughtred Society *Archive of Collections* page. Be certain to check out the link at:

<http://osgalleries.org/collectors/wyman/wyman.cgi>

We continue to seek additional volunteers to assist in scanning, documenting and selling items from the Bob Otnes collection. We plan to auction many items from Bob's collection on eBay this year. We need volunteers to photograph pieces, write brief descriptions, and post them for

auction. Volunteers with eBay selling experience are especially encouraged to volunteer. Please contact the Oughtred Society with your interest and what areas you want to assist in:

oughtredsociety@comcast.net

Reported by Bob De Cesaris
robert.g.de.cesaris@intel.com

Oughtred Society Annual Meeting in Las Vegas – April 29, 2017

The Oughtred Society 2017 Annual Meeting will be held in Las Vegas at the Atomic Testing Museum on April 29. Cost is \$45/person (spouse is free). The host hotel is the Four Points by Sheraton Las Vegas East Flamingo across the street from the museum. The OS has a group rate of \$99/night for Friday and Saturday nights. The meeting will feature displays of slide rule collections, an auction, buying, selling and swapping, two live presentations and the opportunity to meet and talk with fellow slide rule enthusiasts, many of whom are experts in their areas of interest. Additional items from the Thomas Wyman collection will also be offered at the auction. Optional group dinners will be held on Friday and Saturday evenings at the hotel in a private meeting room. Food will be catered by the Italian restaurant Buca di Beppo.



Event Schedule

Friday, April 28, 2017. Sheraton Las Vegas East Flamingo Hotel

Optional welcome dinner will be held Friday evening at the hotel in a private room with a fine selection of food supplied by Buca di Beppo Italian Restaurant. Cost will be \$30/person.

Saturday, April 29, 2017. The Atomic Testing Museum

The Atomic Testing Museum, just walking distance from the hotel, will host the annual meeting.

The schedule is as follows:

- 8:00 - Room opens, Set up displays, Coffee and muffins provided.
- 9:00 - Circulate, View displays, Meet collectors, Exchange ideas, Evaluate items for sale, Brief introductions. (No sales until after the auction.)
- 10:30 - Presentation #1: 25 minutes, 5 minutes questions.
- 11:00 - Presentation #2: 25 minutes, 5 minutes questions.
- 11:30 - Break for lunch (see Lunch Options below); Walk across the street. Museum security will be present and the meeting room will be locked during our absence.
- 1:00 - Setup and Inspection of items to be auctioned.
- 1:30 - Auction of items followed by open selling and swapping.
- 3:00 - Afternoon break. Cookies and refreshments provided.
- 3:15 - Annual Meeting.
- 4:30 - Begin pack up.
- 5:00 - Vacate room.
- 6:30 - Optional Dinner - held at 6:30 PM at the hotel in a private room with another fine selection of food supplied by Buca di Beppo Italian Restaurant. Cost will be \$30/person.



available until March 29, 2017. Since this newsletter will reach you after the closing date for the

special room rate, check with the hotel to see if the special rate is still available. Note: cancellations made after March 29 may result in a one-night charge! See the meeting announcement for additional nights. **Exact instructions from the hotel for obtaining the special \$99 rate for the OS are: Dial 702-473-6400; select Guest Services (option 3). Say "Booking for Atomic Meeting 2017 at \$99 rate".** [SEP]

Click here for Details and Registration. REGISTER NOW!

Reported by Richard Davis
cyberengineer@earthlink.net

The UKSRC Slide Rule Circle

"Great News! The UK Slide Rule Circle) will host another UK-based IM in 2018. IM2018 will be held in Stratford-upon-Avon. The theme, venue and other details are still being worked out. More news will follow in plenty of time but the date is set, so put it in your diaries: Friday & Saturday, 21-22 September 2018"



Contact: Rod Lovett by email: rod@lovett.com for more details.

Skid Stick 55 is in the hands of UKSRC members. Please take this opportunity to renew subscriptions for 2017.

UKSRC Spring Meeting will be held at Dave Nichols' home on Sunday, 23rd April 2017. See details in the next Skid Stick or contact Peter Hopp. **ALL are very welcome!** Bring along anything of interest for *'show and tell.'*

Note that Peter can be contacted at: peterhopp678@btinternet.com

Peter also sent these messages:

All collectors of slide rules and other old calculating devices are invited to join the UKSRC. Just go to the website at [http://uksrc.org.uk/](http://uksrc.org.uk) and navigate to the *'Skidstick'* and *'Slide Rule Gazette'* tabs for additional information. Membership includes the "Skidstick" that is issued several times per year. It now is delivered digitally via email. Membership costs 18 BP per year, and the annual Gazette costs an additional 22 BP a year for International subscribers. The Brits and Europeans pay a bit less. Payments can be made via PayPal.

This is a reminder that the *2016 Slide Rule Gazette* has been published and is available to all for purchase. This is the Colin Barnes Memorial Issue; a bumper-sized 120 page plus journal with 20 technical articles on slide rules and historical calculating devices. The postal delivered price is £17 for the UK, £19 for Europe, and £22 for the US and the rest of the world.

We are now gathering articles for the next Gazette - No 17, Autumn 2017. All submissions gratefully received and we will get it into shape for you however it is submitted - whether by Word file, PDF, any other form of computer input, or even by hand-written submission! Submissions to me please for initial sorting at: peterhopp678@btinternet.com

Readers should take note that the first round of sales of the Colin Barnes collection is over and the next round is being contemplated. Contact Peter Hopp or Rod Lovett for more information.

Reported by Rod Lovett & Peter Hopp.

News from The German Deutschsprachigen Rechenschieber-Sammler

German RST Meeting in Bielefeld, Germany German-speaking slide rule collectors usually meet twice per year for an RST, in the March / April and September / October time frames. RST stands for *Rechenschiebersammlertreff* (slide rule collector meeting). The place varies, the past few meetings having been in Stein, Moers, Jena, Wiesbaden, and just recently Bielefeld. In September

2017 we will host an IM, International Meeting, in Bonn (see separate article below for details). Next spring in 2018 we plan a RST in Kiel in Germany's far north. We usually gather first for talk and refreshments on Friday evening, have the RST on Saturday, and depart on Sunday.

Typically, about 20+ collectors attend, depending on the exact date and location. About a third bring their partner along, who in turn arrange a programme of their own parallel to the RST. A number of collectors from Switzerland, the Netherlands, and Luxembourg are also regular participants. The style is very informal. The organization has been in the hands of Karl Kleine since the Moers meeting in fall 2015.

The 31st RST took place on Saturday, April 1st. Due to various circumstances this time, some of the "usual suspects" were unfortunately unable to attend. There were 15 participants. The meeting took place at the Historic Museum of the city of Bielefeld. We try to locate RSTs at technical



musea, landmarks and the like. Karl Kleine presented a talk on the *System Korte slide rule*; a rare and previously unknown slide rule type. Karl discovered an unexpected use, that being for high precision calculations. Karl also discussed a second special purpose slide rule, one by Hubert Weikart for the planning of radio communication systems. The scale systems on the third slide rule that Karl discussed was designed by Hans Kordetzky and executed on the ARISTO 80104 special purpose slide rule. It was a promotional gift of the Hauni factory and included letter scales and a spirit level together with a standard ARISTO 89 Rietz pocket slide rule. It was a funny item indeed! Next to these presentations of particular slide rules, we had a number of discussion items and short presentations as well as our standard show and swap session. Though smaller in number of participants this time, we judged it a successful RST.

IM 2017 in September in Bonn, Germany **Karl Kleine** reported that everything is set for the International Meeting in fall in Bonn, Germany, including the social programme for the evenings and the partner programme. Registration is open now, just look at the web site:

<http://www.im2017.org/>



And don't forget your early hotel reservation! The room rates are inexpensive, just about \$90 per night for a single room and \$110 for a double room (taxes included). The price includes a buffet breakfast. There is even a description on where to fly to, and the roads and trains to use to reach the hotel and Arithmeum, where the conference will be held. All details are at the meeting's web site shown above.

We have a good number of papers registered, some are even in for processing for the proceedings, but if you should have another interesting talk and paper, we could still fit in one or even two. Don't be shy, it can also be a short paper and need not be the next Einstein publication. But hurry, at least your intent must be known as soon as possible (dates for papers on the web page).

The IM will run from Friday afternoon to Sunday noon. It will take place at the Arithmeum, a unique museum dedicated to computation. It belongs to the math department of the University of Bonn, but is much more than a typical display at a university. If you are interested in slide rules or mechanical computation of any kind, it's a "must see". IM participants will have access to the museum, and as a special treat we will have guided tours to the displays, and have some looks behind the scenes during the extended lunch break on Saturday. Have a look at:



<<http://www.arithmeum.uni-bonn.de>>
Rare Calculator Display at the Arithmeum

Finally, on Sunday, there will be the opening of a special exhibition at the Arithmeum: *300 years of logarithmic computation in German-speaking countries*. That will cover the 17th to 19th century, roughly the development of slide rules and similar instruments in central Europe up to the time of WWI. This will be a unique opportunity to see original items from many first class collections, a once in a lifetime experience.

We make a special invitation to our non-European OS members. That, of course, mainly means members located in the US. This will be a perfect occasion for a trip to Europe. It is not just a slide rule meeting. This time we have something very special with the Arithmeum and the special exhibition on top of our standard IM programme. In order to further support that, Karl Kleine, the organizer of the IM, has also prepared an extra page on IM2017's web site with some personal tourist tips on the web pages of the International Meeting. Take a chance and come to Germany to enjoy IM2017, the Arithmeum and the special sights in and around Bonn, Germany!

Details about the venue, hotel, and technical and partner programs are posted on the RST website:

<http://www.im2017.org/>

For any specific questions about the meeting or papers, contact **Karl Kleine** at:
kleine@im2017.org

Reported by Karl Kleine

The Fall 2016 & Spring 2017 OS Journals



David Sweetman reported that the *Spring 2017 issue of the OS Journal* has been sent to members of the Oughtred Society, and that the *fall, 2017 issue of the OS Journal* is in good shape. Below is the table of contents of the spring issue, and the tentative list of articles for the fall issue of JOS. . . If you want to contact David, please take note that his email address has been changed to:

david@quadd.info

The Spring 2017 Issue of JOS

<i>Note from the Editor</i>	David Sweetman
<i>Note from the President</i>	Robert De Cesaris
<i>The Oughtred Society Awards for 2016</i>	Otto van Poelje
<i>A Brief Introduction to Statistical Quality Control</i>	David Sweetman
<i>The “Delco-Remy” S.Q.C. Lator</i>	David Sweetman
<i>The “GE” Quality Control Slide Rule</i>	David Sweetman
<i>The Pickett N-525 StatRule Statistical Scales</i>	Simon van der Salm
<i>The Shanghai SPC Slide Rule</i>	Simon van der Salm
<i>Mear’s Quality Control & Probability Calculator</i>	David Sweetman
<i>The QC Calc™</i>	David Sweetman
<i>The Limpert Board</i>	Simon van der Salm
<i>Jan Józef Baranowski: Life and Machines</i>	Valery V Shilov & Sergey A. Silantiev
<i>Developing Slide Rule Calibration</i>	Marion Moon
<i>A Puzzle</i>	Terry Kirkpatrick
<i>Book Review: The Digital Slide Rule</i>	David Sweetman
<i>Book Review: Pencil Slide Rules</i>	David Sweetman
<i>Book Review: Napier 400</i>	David Sweetman
<i>Book Review: Meilensteine der Rechentechnik</i>	Stephen Deckelman
<i>Annual Financial Report For the OS for 2016</i>	Clark McCoy

Technical Papers accepted for the Fall 2017 Issue of JOS

<i>Method of Teaching Slide Rule in Historic Sequence</i>	Stephan Weiss
<i>SRE</i>	Peter Alfeld
<i>Unusual Cursors</i>	Phil Stanley
<i>Determining Slide Rule Algebraic Operations</i>	Tom Hazard
<i>Biographical Elements on Lenoir & Tavernier</i>	Marc Thomas
<i>How to Photograph Slide Rules</i>	Roger Dollarhide
<i>IGN Logarithmic Circle</i>	Jose Fernandez
<i>Norma Gambrinus Circular Slide Rule</i>	Richard Davis
<i>Notes on scanners</i>	David Walker
<i>A Poor Man's Collection, Part 2</i>	Roger Dollarhide

Authors are encouraged to contact David Sweetman at: david@quadd.info with proposals for papers. He still has limited space available for Spring 2018.

Reported by David Sweetman

Report from Membership Secretary: Clark McCoy

Clark McCoy reports that since my last report, ten new members joined the Oughtred Society.



Collins, Arlin	Rotan, TX, USA
Earle, George	Dingmans Ferry, PA, USA
Montren, James	Stony Brook, NY, USA
Mounts, Michael	Chicago, IL, USA
Parramayorquin, Juan Jose	Colonia Centro, Mexico
Pettitti, Alex	Suwanee, GA, USA
Quinquilla, Jamie	Segal, Spain
Ryan, James	Marina, GA, USA
Sahlstrom, Roy	Elmhurst, IL, USA
Sveglar, Goran	Goteborg, Sweden

Welcome to The Oughtred Society. Congratulations to our new members. You will be able to enjoy 2 issues per year of the **Oughtred Society Journal**, just packed with technical papers on slide rules and historical calculators, and also bi-monthly issues of the **OS Newsletter**. Members also are able to write papers for the OS Journal, participate in our meetings and auctions, and receive a directory of our members with contact information. We hope that you enjoy the rewards of your OS membership, and encourage you to join in Oughtred Society activities. A total of 400 members signed up for Oughtred Society memberships in 2016.

REMINDER: To all members, remember to renew your membership. The spring issue of the Journal of the Oughtred Society already has been sent to registered members for 2017. If you have not yet received your spring issue of JOS, then you must have not have paid your dues. For overseas members, you may have to wait an extra week or two to receive your copy of the spring, 2017 JOS. To renew your membership, just go to the Oughtred Society homepage at:

<http://www.oughtred.org>

and click on **Membership** and follow instructions. You can pay online by credit card or PayPal, or you can pay by check the old fashioned way.

If you have any questions about your membership, contact Clark at:

[<clarkmccoy2@comcast.net>](mailto:clarkmccoy2@comcast.net)

Reported by Clark McCoy

eBay Slide Rule Sales

I took a quick look at eBay slide rules sales for the past two months and found a few interesting sales (over \$250), in addition to the Fullers, Thachers etc. Prices were great for sellers!

North American Slide Rules

Keuffel & Esser Sperry Patent Pocket Circular Slide Rule model #4017	\$695
Charles Lane Poor Line of Position Navigation circular slide rule	\$575
Pickett C19-T Collins Microwave Transmission slide rule	\$400
Pickett 110 ES circular slide rule (has scales like the Dempster RotaRule)	\$363
Pickett 111 ES circular slide rule	\$300
K&E duplex slide rule, early Cox patent, with chisel cursor	\$283
K&E 68 1400 Analon duplex slide rule	\$270
K&E 68 1210 duplex slide rule, new old stock	\$250



**Charles Lane Poor Line of Position Navigation
Circular Slide Rule, sold for \$575**

European Side Rules

Höhenrechenschieber HR1 Dennert & Pape cylindrical navigation slide rule	\$899
Cercle à Calcul Meyrat et Perdrizet pocket watch style circular slide rule	\$712
Halden Calculex pocket circular slide rule, case and book (35 bids, a great price!)	\$380
Billeter #8 cylindrical slide rule with 8 meter scales (price estimated)	\$350
Everard type gauger's slide rule, 12-in boxwood, 4-sides, no maker	\$335
Dring & Fage gauger's slide rule, 12-in boxwood, 4-sides	\$310
Mechanical Engineer pocket watch style circular slide rule, no maker's name	\$304
Aristo 01068 slide rule	\$284
John Dicas bone proof rule	\$260
Dennert & Pape Dreieckrechner aircraft circular slide rule	\$250

Asian Slide Rules

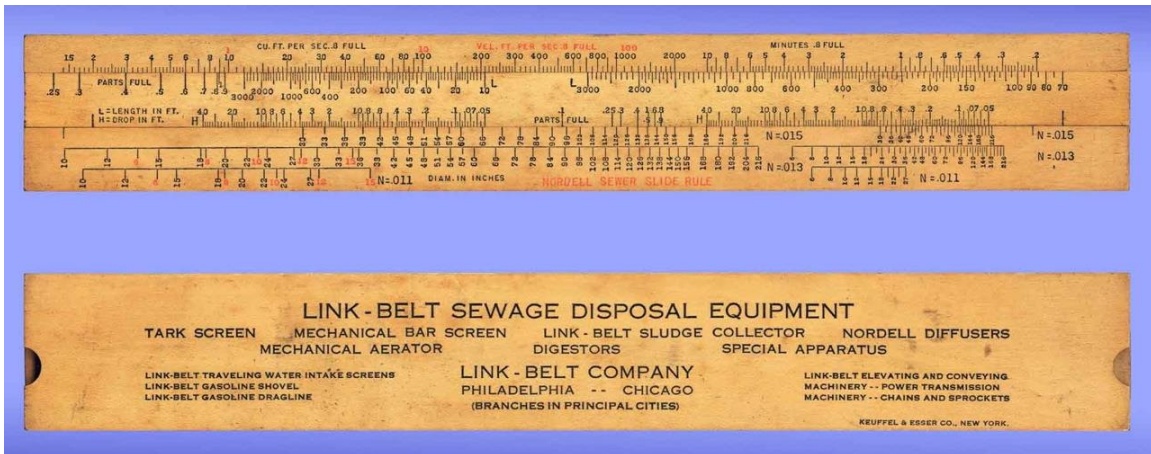
Flying Fish model 1018 Electrical Engineer's slide rule	\$603
Flying Fish pocket vector slide rule with hyperbolic scales	\$393
Flying Fish model 1015 Engineer's duplex slide rule	\$338

Reported by Ed Chamberlain

Glimpse from the JOS Rarities Gallery

Your editor has selected the *Nordell Sewer Slide Rule* from the JOS Rarities Gallery to feature in this issue of the OS newsletter. The owner, Dr. Paul J Tarantolo Jr, gave this slide rule a *Rarity* rating of *Very Rare*, one step above the *Rarities* rarest rating of *Extremely Rare*. This Nordel Sewer Slide Rule was made by Keuffel & Esser in 1928. It has no model number and was not listed in K&E's catalogs, so it was probably not a big seller. It was probably a special order slide rule.

The purpose of this slide rule is to calculate certain sewage flows in sewage collection pipes for different sizes of pipes. Factors such as the diameter and length of the pipe and its drop over its length, and a factor related to how full the pipe is, leads to the calculation of the flow velocity. From the advertising on the reverse side, it appears his slide rule was made for the heavy equipment companies that excavate and lay sewer pipe.



Nordel Sewer Slide Rule by Keuffel & Esser Co., 1928

I invite the readers to suggest a *'Rarity'* for the next issue of the Newsletter. Go to the OS website to view the Rarities Gallery at:

<http://osgalleries.org/os/completegalleries.cgi>

Reported by Ed Chamberlain

Slide Rules As An Artform

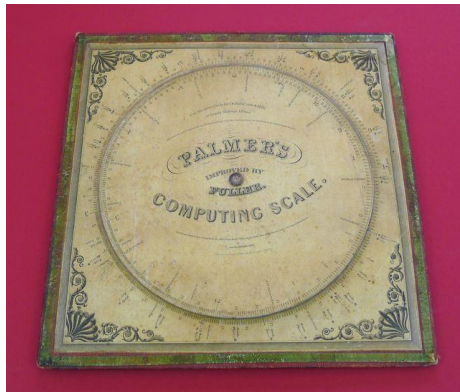
As I wrote earlier in this newsletter, I am preparing a paper for IM2018 on the subject of slide rules as an artform. Not many write about the artistic qualities of slide rules, but there are many with artistic flourishes, even some that have been incorporated into paintings and sculptures. And in displays, they can be arranged in a mix of rectilinear, circular and cylindrical types to create 'still life's' with compositions of mixed elements. I show some examples below:



A Doctored Photo Featuring William Oughtred, Inventor of the Slide Rule



A Painting of Sir James Hopwood Jeans, British Mathematician - from Peter Hopp



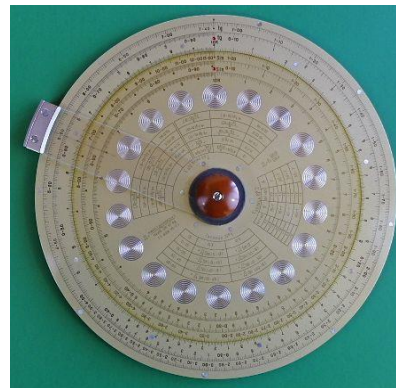
Palmers Computing Scale c1850



A Slide Rule Display by Ed Chamberlain



A Sculpture by Werner Rudowski



A Russian Artillery Slide Rule c. 1972

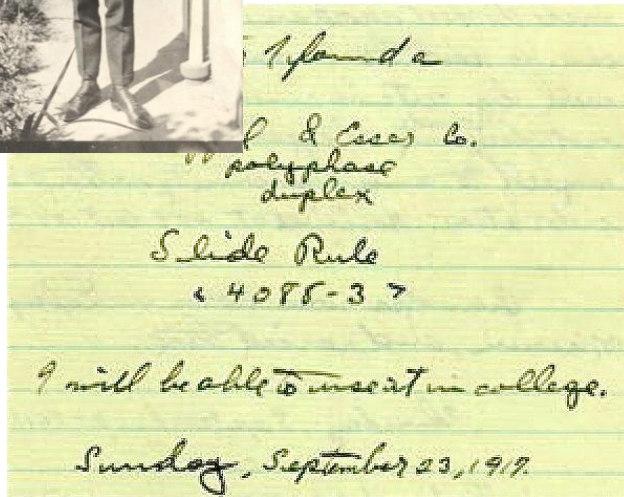
Reported by Ed Chamberlain



Linus Pauling's Slide Rule

Linus Pauling kept a detailed diary of his thoughts and experiences as an undergraduate at Oregon Agricultural College. Pauling wrote at the beginning of his first year: *'Early last fall, as I was crossing a field on the way to school with a bunch of boys, I found a slide rule. The other boys had stepped over the box in which it was, but I picked it up. I watched the advertisements in the daily papers for many days, but it was not advertised for.'*

It is a polyphase duplex slide rule, made by Keuffel and Esser Co., and costing about \$7.50. Its number is < 4088-3 >. It is 12 inches long and contains 12 scales.'



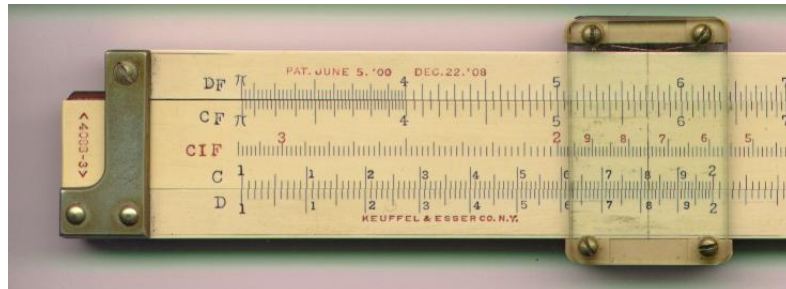
On
will

slide
of
track

another page, Pauling wrote: *'I make better than 95 in Analysis (Math). I will take all the math possible. I will make use of my rule. I will make the acquaintance Troy Bogard. I must go out for and succeed.'*

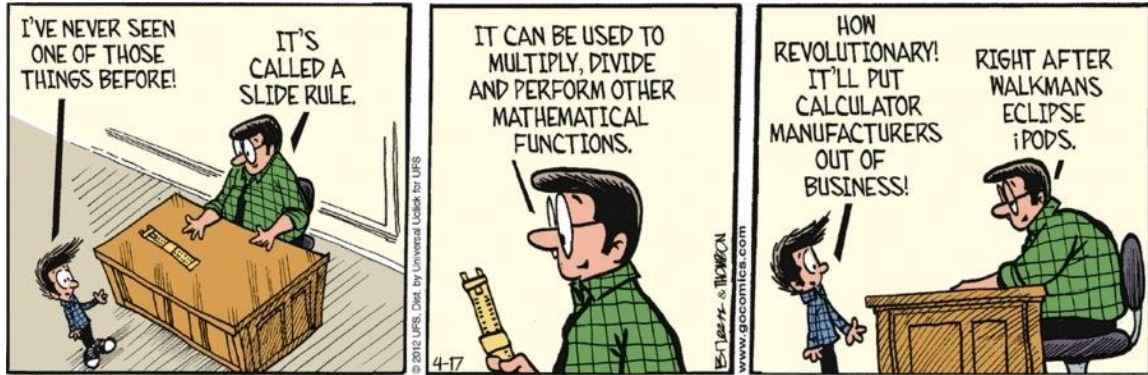
An entry in late September of 1917 contains yet another mention (see above) of finding a slide rule. **Pauling wrote: 'Last winter I found a Keuffel & Esser Co. polyphase duplex Slide Rule < 4088-3 >. I will be able to use it in college.'** Note that hand written entry above. The images are from "The Pauling Blog – Pauling's Freshman Diary, Part 1." Below is the link to Linus Pauling's diary and an example of a K&E 4088-3 slide rule. One might think that Pauling could have benefited more if he used a log Log Duplex slide rule. He then could have more directly solved math problems involving almost any root or power. See more about Pauling at:

<https://paulingblog.wordpress.com/2009/09/15/paulings-freshman-diary-part-1/>



**Keuffel & Esser Model 4088-3 Slide Rule from Clark McCoy Collection
(example of slide rule found by Linus Pauling)**

On The Humorous Side



Reported by Ed Chamberlain

..... Send Newsletter Contributions to: edchamberlain99@gmail.com