

December 2016 / January 2017

From Your Newsletter Editor - Ed Chamberlain



Greetings from New Hampshire It is still winter here in rural New Hampshire; with freezing temperatures almost every night, snow-covered fields, trees & house roofs, and sometimes slippery roads in the morning. If this sounds familiar, the weather is about the same as 2 months ago. The snowfalls have been light, but persistent this winter, with daily melting periods and sometimes freezing rain and sleet. The snow cover has never accumulated to more than a 10 cm depth. The photo to the right was taken in late November, but it looks the same today; not like a few years ago when my back yard looked like the picture below.



The days are getting longer now. However, the output of my solar panels fell to 250 kWh for the month of January. That is about ½ of the power consumed by the lights and appliances in my house and by my plug-in hybrid car during the winter months. The good news is that with longer days and the sun rising higher in the sky, the solar panels will soon (in April) be producing about 750 kWh/month. Then, for about 7 months, I will be banking a surplus of

electrical power, and will use the credit for the surplus next winter.

I must admit not thinking much about slide rules over the past two months. For the holidays, several slide rule displays in my house were displaced by the Christmas tree and crèche, and the many other holiday decorations and children's toys and dolls from the past. The tree had real candles on it as it has most every year in the past. But as in recent years, I have decided not to tempt fate any more, so the candles were not lit. My German wife Ingrid always found much joy in celebrating Christmas, as it was when she grew up in Germany. Since her passing a few years ago, I have skipped the tradition of lighting the candles. So now the tree has been taken down and the decorations put away until next Christmas, and my slide rules are back in their display areas for family and visitors (and me) to enjoy.

Note in this issue that five meetings for slide rule collectors are being planned:

- 1) **Spring meeting of the Oughtred Society** will be held in Las Vegas on April 29th.

- 2) *Spring gathering of the UKSRC Slide Rule Circle* will be held at Dave Nichols home, Sunday, April 23rd.
- 3) *Spring meeting of the German language RST* in Bielefeld, Germany; date to be determined.
- 4) *IM2017* International Meeting in Bonn, Germany, September 22-23, 2017.
- 5) *IM2018* International Meeting in the UK, September 21-22, 2018; place not yet determined.

I encourage all members to attend these meetings, especially the meetings that are at short travel distances. The meetings are a great opportunity 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 year's Las Vegas meeting 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. And the IM2017 meeting in Bonn will provide an opportunity to see the great slide rule and calculator displays at the Arithmeum museum.

As this Newsletter was about to go to press, I received an email from Rod Lovett, representing the UKSRC, announcing a gathering in Scotland in memory of the 400th anniversary of John Napier's death. See "*Breaking News from the UKSRC*" later in this newsletter.

Details for these meetings follow in the President's report and in the various group reports.

Reported by Ed Chamberlain

From the President of the Oughtred Society – Bob De Cesaris



We are off to a great start for 2017! Our Oughtred Society Annual Meeting has been scheduled for April 29, in Las Vegas, NV, at the same location as last year, 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 more unusual items from the Thomas Wyman Collection, 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, catered by Buca di Beppo, will be held on Friday and Saturday evenings at the hotel. These dinners always feature interesting

discussions and an opportunity to renew old acquaintances and meet new collectors. We have established a special Oughtred Society room rate at the Sheraton East Flamingo of \$99 per night. See instructions further below for instructions on booking a room at the spring meeting in Las Vegas.

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 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



A Beautiful Piece on Display



Rare Calculators on Display on one of the Arithmeum's Four Floors

exhibition "*Old German Slide Rules*" at the Arithmeum.

The Arithmeum is a mathematics museum owned by the Forschungsinstitut für Diskrete Mathematik (Research Institute for Discrete Mathematics) at the University of Bonn. It features large lighted open spaces with an outstanding collection of machines on display to encourage interest and education in mathematics. It was founded by the Director of the Institute, Bernhard Korte, who contributed his private collection to form the initial core of the institute's collection. Time will be provided at the meeting to view the Arithmeum's extensive collection.

Guided tours of Arithmeum's collections are in the planning stage. Registration for IM 2017 will be opened during the first quarter of this year. Visit <http://im2017.org/> for additional information and for the latest updates

The year 2016 was another busy year for the Oughtred Society. Some highlights of the past year include:

- A very successful **Annual Meeting in Las Vegas** held last May featuring many interesting displays as well as items at auction from the Thomas Wyman collection and from many members.
- An outstanding international gathering of collectors of historic calculating instruments at **IM2016, held in Trento, Italy**, our first ever IM in Italy! Organized by Nicola Marras and Wolfgang Irler, this meeting was held at the MUSE Science Museum with 37 participants from 12 countries. Both Nicola and Wolfgang are to be commended for organizing this excellent program and starting a new tradition that includes Italy as a host of our International Meetings!
- ***Publication of Pencil Slide Rule and their Successors, The Calculator Pen and Pentop Computers***, a collection of articles that cover this subject most admirably, authored and edited by one of our Oughtred Society founders, Rodger Shepherd. This publication was recently completed early this year and will be available for sale to the membership in February.
- ***Additions to our Archive of Collections***, which currently features items from the Wyman Collection. This project continues to grow and now numbers over 430 pieces thanks to the continuing efforts of Clark McCoy, Rod Lovett, and Richard Davis. After completion of the remaining items from the Wyman collection, plans are to scan and photograph all of the unique pieces from the Bob Otnes collection for inclusion as well. Be certain to check out the link at: <http://osgalleries.org/collectors/wyman/wyman.cgi>
- ***Sale of important pieces from the Wyman Collection*** at the David Stanley 68th International Auction was held last September. Additional specialized items, including

tools and folding rules by Stanley Rule and Level Co, are in the planning stages for a future auction in the US.

- ***Boxing, transportation and storage of the Bob Otnes Collection*** of slide rules and calculating devices from his home in Palo Alto to the Oughtred Society storage facility in Roseville, CA. A huge thank you goes out to Clark McCoy for constructing the shelves, planning the access, and innovatively creating sufficient space to permit storage of all items within one storage area. The job ahead is quite large; additional volunteers to assist in scanning and selling items from the collection planned for eBay in the coming year continue to be sought. Please contact: oughtredsociety@comcast.net with your interest in helping.

As many of you know, Bob Otnes, our Journal of the Oughtred Society editor for many, many years, and another of our founding OS members, has been very ill recently and has relocated to Palo Alto Commons during the last summer, an assisted living center in Palo Alto, CA. He always appreciates receiving notes, cards, and letters from his fellow collectors and friends and one can do so by addressing all correspondence to him at:

**Bob Otnes
c/o Louise Burton
2632 Ponce Avenue
Belmont, CA 94002**

To close, I want to recognize David and Donna Sweetman for their continuing dedication to our fine Journal, and to Richard Davis and Clark McCoy, who have assumed responsibility for updating our very important web presence. I want to also thank all of our members for their excellent papers and discussions. I look forward to another outstanding year of research, collecting, and interesting articles for 2017!

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 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.



Download Flyer The main hotel for our April 29, 2017 Oughtred Society meeting will be The Four Points by Sheraton Las Vegas East Flamingo, where we will be holding dinner both nights. The hotel has agreed to accept reservations at the special Oughtred Society rate of \$99 per night for Friday and Saturday nights. This rate will be available until March 29, 2017. 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 GuestServices (option 3). Say "Booking for Atomic Meeting 2017 at \$99 rate".**

Click here for Details and Registration. REGISTER NOW!

Reported by Richard Davis
cyberengineer@earthlink.net

The UKSRC Slide Rule Circle

“Great News! It appears that there is every chance that we (the UK Slide Rule Circle) will host another UK-based IM in 2018. 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 has been recently sent by post or email attachment to 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

Editor's Remarks: Just as this newsletter was about to go to its proof reader/editor - Anne Morris of Hanover, NH - Peter wrote by email once again, this time attaching Issue 55, February 2017, of the "*Skid Stick*," the UKSRC newsletter. Thank *Silicon Valley* for email! I do not know what we would do to keep connected about slide rule collecting affairs with only snail-mail or texting. As usual, this issue of the Skidstick is chock full of slide rule stories, pictures and descriptions for the unusual and sometimes rare pieces. Below I borrow a little lament submitted to the "*Skidstick*" by UKSRC member Tom Martin. It is titled: "*Epitaph to a Gauger.*" It was written by John Owens, Supervisor of Inland Revenue, Excise Branch, UK Inland Revenue Department, perhaps on the occasion of his retirement in 1879. He writes of the tools of his trade that he has set aside in his retirement.

"Epitaph to a Gauger."

by

John Owens

My Gauging-stick is now laid by,
My Sliding Rules neglected lie,
My Box and Tape, and likewise ***Brannans***,
Must now be put in other hands;
My Brass Plate and Dimension Cane
Myself must never use again;
My Malt Receiver and my Float
Must nevermore engage my thought,
My Bottle's broke, my Pen wrote out,
My ink is likewise turned drought;
My Book is closed, my Gauge is cast,
And all my work is done at last.

Note that many of John Owens' tools are well-known types to collectors of slide rules, especially the sliding rules. One group of objects that struck me as not being common were his '***Brannans.***' The Brannan rule is not very common in slide rule collections because it is a quite a rare find, and is usually very expensive. It also strikes me as being special because it takes the form of Oughtred's original slide rule: two wooden rods, with square cross sections and opposing log scales. You just set them on a table with the matching log scales adjacent to each other, much like on the A & B scales on an ordinary slide rule. And then, to make calculations, you just slide one of the rods against the other while holding the other rod fast to the table. The main difference between the Oughtred and the Brannan is that the Brannan rods have hinges at their mid-length, so they can be folded and made more compact for carrying in the Gauger's tool bag. And the two Brannan rods can be joined to make one very long rod for dipping in barrels to measure the content's depth. The Brannan rods also have special scales for calculating the volume of the contents in the cask or barrel from the dip rod measurements.

In the Brannan Rule pair below, note the hinges for opening up each of the rules to make a sliding rule pair, and the coupling ends for making a single long dipping rod.



Brannan Rule pair from the Tom Wyman Collection – Item #34, image 34a

from: <http://osgalleries.org/collectors/wyman/singleline.cgi?string=34>

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/> 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 written submission! Submissions to me please for initial sorting. 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

Breaking News From The UKSRC Slide Rule Circle

The following information may not be relevant to the majority of our membership. But since such an opportunity will not occur for a further one hundred years, by which time it is fairly predictable that none of us reading this will be in a position to attend, I feel that it is reasonable to acquaint you of the following:

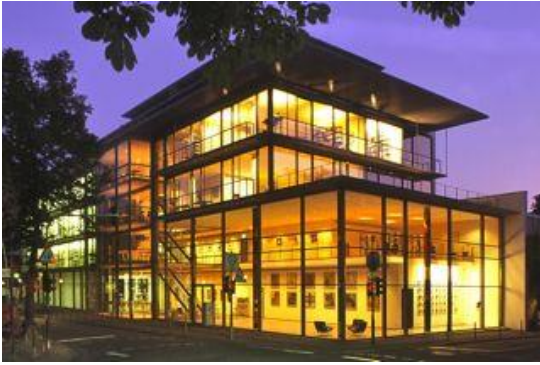
On Tuesday 4th April 2017, St Cuthbert's Parish Church, Lothian Road, Edinburgh a service to commemorate the death of **John Napier**, the inventor of logarithms, will be held. This is 400 years to the day of Napier's death and St. Cuthbert's Church is where he is buried. The service starts at 14:30 and will last for about an hour, to be followed by refreshments.

The present Lord Napier, who is a proven direct descendant of John Napier, and his family, will be in attendance. Entry is free. If you wish to attend, please let Charles Napier know at c.napier@napier.abel.co.uk, since numbers are required for catering purposes. The event is being organized by the Clan Napier Society and Edinburgh Napier University.

Reported by Rod Lovett

News from The German Deutschsprachigen Rechenschieber-Sammler

Peter Holland reported that a date and meeting place for the **31st German language RST Spring Meeting** have not yet been officially set, but he expects it to be held in April in Bielefeld, Germany. The announcement with the date and venue details will soon be sent to RST members. Contact Peter at PHolland@t-online.de if you are not yet an RST member, but are interested in attending. Remember that this is a German language meeting.



IM 2017 in September in Bonn, Germany
Karl Kleine reported that the next **International Meeting IM2017** of historic calculating instruments will be held at the Arithmeum museum of computing instruments in Bonn, Germany on September 22-23, 2017. The theme is: *Calculating in Everyday Life*. In many cases in our daily life we perform computing tasks without thinking about them. We just do them. That also holds for the devices we use for these activities, we simply use them.

So for this IM we do not ask for reports on yet another intricate special instrument for some technical or scientific application and its calculation, but for interesting *bread-and-butter stuff*. Of course in addition to the special theme, we are open for all kinds of submissions for IM2017; perhaps even a nice or funny story.

Respond to the *Call for Papers* to: im@im2017.org

The meeting will start on Friday, September 22nd, at 14:00, with a first paper session at the conference hotel. After a break, a traditional session will allow you to swap, sell/buy, demonstrate or just inspect slide rules, other instruments, literature and associated materials. On Saturday 23rd, we will continue the paper sessions at the **Arithmeum** nearby. You will be able to view the Arithmeum collections on Friday morning and Sunday as well as during breaks on Saturday. We will also try to arrange guided tours for specific topics. Details about the venue, hotel, and technical and partner programs will soon be 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 or karl.kleine@eah-jena.de

Reported by Karl Kleine & Peter Holland

Exhibition of Early German Slide Rules and Calculating Devices at the Arithmeum
Werner Rudowski is working hard on an exhibition of early German slide rules at the Arithmeum. The exhibit will be officially opened during IM2017. A catalog of all the items in the exhibit will be available at the meeting.

Your editor has lent one of his most precious slide rules for this exhibit. It is a *4-meter Julius Billeter Rechenwalze*. It dates to perhaps 1890. It is a rarity because it labeled with a Billeter 1888 patent for a Billeter Rechentafel, the predecessor of the Billeter's 1891 patent for this Rechenwalze. Both the Rechentafel and the Rechenwalze have the same scale set, the Rechentafel scales being glued to flat plates and the Rechenwalze scale sets to cylinders. Because it is marked with the 1888 patent for the Rechentafel, it may be that this cylindrical slide rule was made before the official patent date of 1891 for the Rechenwalze.



Julius Billeter 4-m Rechenwalze

The IJzebrand Schuitema Collection at the Arithmeum Many Oughtred Society members know of the Schuitema slide rule collection at the Arithmeum museum. It is one of the largest displays of slide rules in the world. It was donated to the museum by the Dutch collector, *IJzebrand Schuitema*. Most of the slide rules are arranged in display cases as shown below.



IJzebrand Schuitema with a part of his Slide Rule Exhibition in 1999

(Photo courtesy of David Rance in his paper: “New Exhibition Opens: *The Schuitema Collection*”, Journal of the Oughtred Society, v.23, n.1, Spring, 2014.)

In addition to the two above mentioned exhibits, the Arithmeum has one of the finest exhibits of calculating devices, from the simplest *‘penny calculators’* of 17th century to *‘Napier’s bones’* to replicas of *‘Pascal mechanical calculating machines’* to *‘Curta calculators’* in the 20th century. One of the earliest pieces in the Arithmeum collection is a *‘calculating table’* where mathematical problems can be solved using *Rechenpfennige* (calculating pennies). It dates back to the 16th Century.

Those attending IM2017 at the Arithmeum will have the opportunity to visit both the *Schuitema Collection* and the exhibition *“Old German Slide Rules”* being prepared by *Werner Rudowski*, as well as the *Arithmeum’s other collections*.

To learn more about the Arithmeum, go to: <<http://www.arithmeum.uni-bonn.de>>

To learn more about the Schuitema collection, go to:

http://www.sliderules.nl/media/papers/JOS_2014_Schuitema_Collection.pdf

Reported by Ed Chamberlain

The Fall 2016 & Spring 2017 OS Journals



David Sweetman reported that he has a full compliment of articles for *Spring 2017 issue of the OS Journal*, and that the *Fall, 2017 issue of the OS Journal* is also in good shape. Below are the contents of these issues of the Journal. . . . Please take note that my 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 of the OS</i> | Robert De Cesaris |
| <i>The Oughtred Society Awards for 2016</i> | Otto van Poelje |
| <i>A Brief History of Quality Control</i> | David Sweetman |
| <i>History of Slide Rules</i> | David Siminovitch |
| <i>The S.Q.C. Lator</i> | David Sweetman |
| <i>The 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 CalcTM</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 Equations</i> | Marion Moon |
| <i>A Puzzle</i> | Terry Kirkpatrick |
| <i>Book Review: Pencil Slide Rules</i> | David Sweetman |
| <i>Annual Financial Report For the OS for 2016</i> | Clark McCoy |

Technical Papers accepted for the Fall 2017 Issue of JOS

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|--|------------------|
| <i>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, three new members joined the Oughtred Society.



They are:
Thiel, John P.
Lantz, Erich
Field, Malcolm

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 early in the New Year. Your editor of this newsletter was amongst the early birds. Early registration will insure that you get the Spring issue of the Journal of the Oughtred Society at the time it is first issued. It also make will make my life easier if every one renews their membership before the Spring issue of the OS Journal is mailed in early May. The May mailings are done in a group mailing by the printer/publisher. After the Spring journal ships, I must manually mail Journals out. It helps not have to do that.

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.

Reported by Clark McCoy

eBay Slide Rule Sales

I took a quick look at eBay slide rules sales for the past two months and did not see anything special that jumped out at me. For sake of time and space, I will skip a summary of eBay sales in this issue of the OS Newsletter.

Reported by Ed Chamberlain

Glimpse from the JOS Rarities Gallery

I have selected the **Goodchild Mathematical Chart** and **Goodchild Rule** from the JOS Rarities Gallery to feature in this issue of the OS newsletter. The Goodchild Mathematical Chart and its accessory Triangular Rule were listed in K&E catalogs for a short time in the early 1900's. The chart breaks the log scale down into 100 parallel segments on two card stock sheets. The total scale length is over 54 feet (16.5 m). Each line is numbered at the beginning and end with the first two digits of the mantissa. The distance along the segment represents the balance of the logarithm. Every fifth gradation along the segment is labeled with the number represented in the logarithmic scale by the particular segment and distance. I show the chart and rule in the figure above. Note the parallel segments, and imagine them being placed from end-to-end to form a 54 ft (16.5 m) long scale.

The triangular Goodchild Rule acts like a slide to enable the calculations. One side of the rule has scales and a slide to add (or subtract) the first two digits of the mantissa of the 2 numbers in the operation. This gives the initial 2 digits of the line on which the result will be found. The other two sides of the rule each have a series of equally spaced gradations and a very short slide that is



Goodchild Mathematical Chart and Goodchild Rule
 (Goodchild Chart a copy of one from the MIT Museum collection)

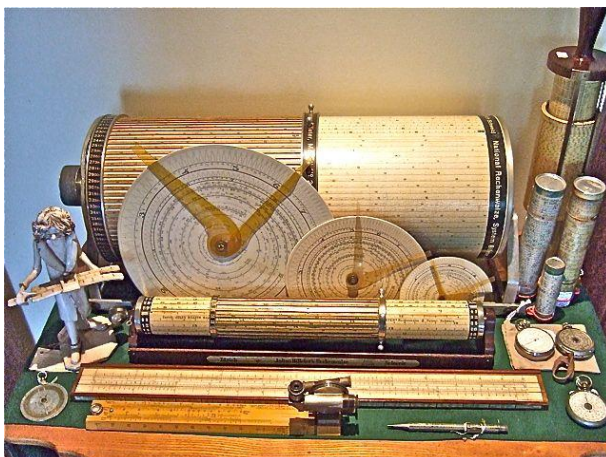
used as an index marker to keep track of the distance of the reading from the left starting edge of the segments. Readings can be resolved to nearly 5 digits at the left index of the first scale segment and 4 digits at the right index of the 100th scale section. As the reader can tell from this description, it takes some practice to be proficient with the Goodchild Chart and Rule. A few of the Triangular Rules are known, but I have been unable to turn up an original example of the Goodchild Chart other than one at the Massachusetts Institute of Technology Museum. The example of the Goodchild Chart shown here is a copy of the MIT example. The Goodchild Rule is one of a few original examples known to exist.

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

A Slide Rule Display by Ed Chamberlain



I mentioned in my introductory message that I put up slide rule displays in my house. To the left is an example. Prominent in the display is a **Billeter National Rechenwalze**, the 20-meter long scale model. Resting on edge in front of it are three L'Appoullat Logz spiral slide rules of different sizes, then the Billeter 4 m Rechenwalze that I mentioned that will be on display at the Arithmeum. Then next in front are a Scofield-Thacher Engineer's slide rule, a Tavernier Gravet Surveying Eclimeter and a mechanical pencil slide rule. To the left side is a Bencini ceramic

figurine of an Italian engineer holding a large slide rule, and a Charpenter Calculimetre at his feet. To the right side, starting in the back, are a Stanley Fuller helical calculator, three different sizes of L'Fay Hellice a Calcul helical calculators, and three pocket watch style circular slide rules.

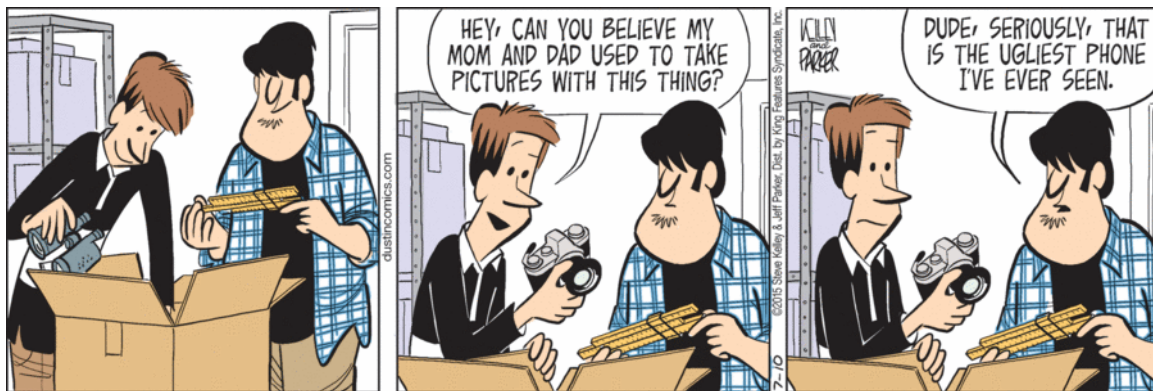
I recommend displaying slide rules in your homes, especially if you have an office to yourself, but also in the more public spaces. There can be an artistic quality to a display, especially if there are a mix of types and sizes.

Reported by Ed Chamberlain

On The Humorous Side

I was sorting through old mail, and came across a letter from Billy Kerr of Baytown, Texas. I remember Billy from a long past OS meeting in Palo Alto, California. Perhaps the meeting was in the late 1990s. Well, Billy came to the meeting with a unique exhibit. It was an airplane made up from slide rules, the main wing being made from a large classroom demonstration slide rule. The propeller, fuselage, and other parts were also made of slide rules of all different sizes and shapes. I have not been able to find a photo of Billy's model airplane in my archives, so perhaps he will send a photo to me for inclusion in the next OS Newsletter.

Well, back to Billy's letter! It was sent in July 2015, and contained a newspaper clipping of the Dustin cartoon that I showed in the last OS newsletter. Billy wanted me to see that cartoon, but somehow I missed it back in 2015. It was fortuitous that Phil Stanley took the time to send it to me for the last newsletter, so here it is again. My apologies to Billy Kerr for the delay in giving him credit for his contribution to the OS Newsletter. So, here is goofy Dustin and his slide rule again.



Dustin Comics 7/10/2015: Copyright by Steve Kelley & Jeff Parker.

See more at: <http://dustincomics.com/>

<https://beta.groups.yahoo.com/neo/groups/sliderule/info>

Reported by Ed Chamberlain

Closing Message From Your Editor

I often get caught up in semi-crisis situations in getting the Newsletter out in a timely bi-monthly manner. The reader may note that there are many contributors; eleven in this issue. There are sometimes delays in receiving the contributions for good reasons. Meetings are in planning stages, contributors have conflicts with work and family, and there are often last minute events in their lives. And my editor/proof reader is often away on a trip. If there are some typos and grammar problems in this issue of the newsletter, it is because she (Anne Morris) left on a one-month trip to New Zealand after doing her magic, but before the past piece was assembled. I do my best to read and reread, but sometimes by eyes just glass over, and I miss something(s).

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