

September 2017

From Your Newsletter Editor - Ed Chamberlain



Greetings from New Hampshire I have taken a break from preparing OS Newsletters over the summer months. I apologize to those who count on receiving regular bi-monthly issues of the Newsletter, but life events and pressing activities have taken precedence. I hope to return to preparing bi-monthly issues of the Newsletter with the next issue.

In this issue you will see an extensive report from the OS President – Bob DeCesaris - on the spring Las Vegas meeting and a preview of the international meeting IM2017 to be held in Bonn, Germany on September 22-24. I will attend IM2017 in Bonn and report on its activities in the next OS Newsletter. Later in this issue, I will preview the paper that I will give at IM2017.

As in the past, I encourage all OS members to attend the international meetings. They are a great opportunity to meet collectors from many parts of the world, and to trade slide rules and slide rule stories. There is a big bonus with the IM2017 meeting in Bonn. That is a visit to one of the best museums for slide rules and other historic calculating instruments – the Arithmeum.

Reported by Ed Chamberlain

From the President of the Oughtred Society – Bob De Cesaris

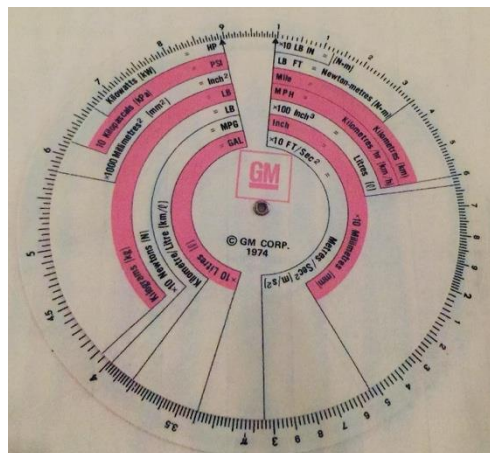


Another Outstanding Annual Meeting in Las Vegas!

The **Oughtred Society Annual Meeting**, held April 29 in Las Vegas, NV at the National Atomic Testing Museum on the UNLV campus, was again the highlight of the year. Members gathered at the Four Points by Sheraton hotel the evening before for dinner and many interesting discussions were held in the fields of calculating, engineering, and technology. The next morning started with the members meet and greet and set-up of displays and auction tables. As usual, the museum which features displays and videos of key players and important milestones in

the history of the race to develop the atomic bomb was open throughout the meeting to OS members. The morning's activities culminated in interesting presentations from two of our members on very different subjects.

- **Marion Moon** presented one of his favorite subjects "End of an Era Slide Rules" which featured a late circular slide rule that was designed by General Motors and copyrighted in 1974, quite late for any slide rule. This rule included gauge points for numerous conversions for distance, power, force, pressure and volumes. The reverse of the rule contained a table of frequently used conversions for 14 different key areas in engineering and



mechanics. Marion related his initial encountering of the rule and some of the work he did in researching its development and utility.



- Our second presenter, **Jim Bready**, brought his improved “**Colossus**” slide rule (“Colossus 2.0”) to the meeting for display and reviewed his interesting experiences with designing and fabricating this rule. The challenges revealed were many, especially in designing and perfecting the scales on this enormous rule, which features five and six place accuracy, and in constructing the cursors with the correct friction and weight for proper operation. Jim noted one of the most visible changes from his initial version was the replacement of the opaque metal cursor counterweights with transparent leaded glass to ensure that no calculation would be blocked by the metal weights. Everyone at the meeting was quite impressed with the rule and with Jim’s passion to create the longest scale slide rule ever created! We will need to compare this rule to Skip Solberg’s effort some years ago that featured the longest rule ever designed. Jim’s rule is certainly the one that would hang in every Fortune 500 high tech conference room in an alternate ‘Steampunk’ universe!

Among some of the other highlights from the member displays were **Richard Davis’s** two displays featuring **Nuclear and Chemistry Slide Rules** and **Ace Hoffman’s Digital Virtual Analog Slide Rule**. Richard’s display included an example of the Hemmi 257, Post 1460, Nestler 33 Chemiker, a large circular Russian Chemical rule, and many nuclear ‘DOSE’ calculators for use when entering nuclear fallout areas. Ace’s display featured his free app which are virtual simulations of linear and circular slide rules which were displayed on both a laptop and tablet computer, along with instructions for downloading these for various operating systems.

Hundreds of interesting rules and calculating devices were on display from the attendees with many items for sale at the auction. Over 70 items from the **Thomas Wyman Collection** were featured for sale at the auction. There were many highlights, including a **24-inch boxwood Sliding Gunter**, **Brown’s Slide Rule for Steam Engines**, an early **Scientific Publishing Co. circular slide rule**, a **celluloid-on-wood Pilot Balloon Slide Rule, Mark II**, and numerous other **boxwood slide rules and Gunter scales**.

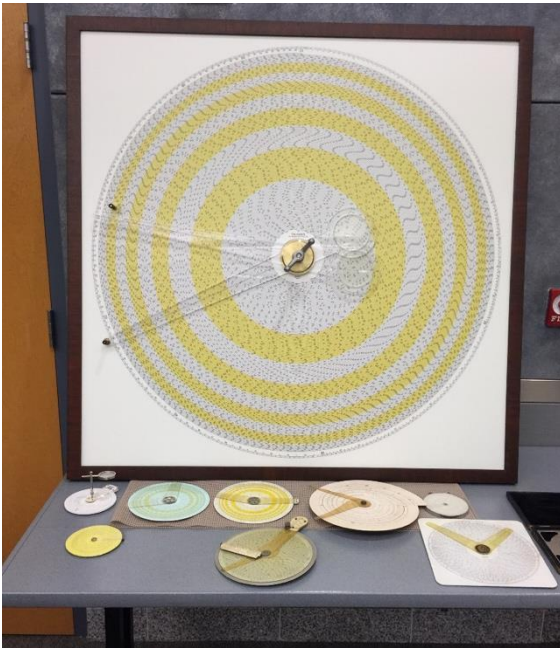
A big thanks to **Clark McCoy**, **Ron Knapp**, and **Bob De Cesaris** for organizing and transporting the rules to the meeting from the Wyman Collection and then transporting unsold items back our storage facility in Roseville, CA.

Our **Oughtred Society Annual Business Meeting** was held on Saturday afternoon, presided over by our president, Bob De Cesaris. Membership remains strong at 355 renewed by the end of April, well on our way to our typical total of 400 members for the year. Bob reported that a new board position, Director Emeritus, was defined at the March Board Meeting, and two of our founding members, **Bob Otnes** and **Conrad Schure**, have assumed these positions. Our two new members of the Board of Directors, **Jim Bready** and **Louis Gotlib**, were also recognized.

The following officers for 2018 were nominated and unanimously approved:

President:	Bob De Cesaris
Treasurer:	Clark McCoy
Membership Secretary:	Clark McCoy

As there were no nominations for the office of Vice-President, this position is currently vacant for the coming year. Our most sincere thanks go out to **Kate Matthews**, who did an outstanding job both in this position and also as our Recording Secretary for ten years, since our May 2007 Annual Meeting. **Herb Gold** has volunteered to manage some of the duties of this position by assuming responsibility for Oughtred Society federal and state tax filings. For any member interested in



discussing this Board position, please contact Bob De Cesaris (robert.g.de.cesaris@intel.com) or Clark McCoy (oughtredsociety@comcast.net) for further information.

The remainder of the meeting focused on updates to the membership on the status of all of our OS publications and our website. **David Sweetman** and **Richard Davis** have continued driving excellent progress and maintaining all schedules in both of these areas. Also covered was the effort that had been made in recovering the files for the English version of the book on Curt Herzstark, the inventor of the Curta calculator, a special project that had been spearheaded by **Tom Wyman**. Members present were also asked to express their preferences for the location of our 2018 Annual Meeting; Las Vegas was clearly voted again as the favorite site for next year.

Other significant Oughtred Society news and updates for this year include:

- **The International Meeting 2017 (IM2017)** will be held on September 22 – 24 at the **Arithmeum**, at University of Bonn, 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 exhibition "**Old German Slide Rules**" at the **Arithmeum**. This exhibit is very much the work of **Werner Rudowski**. 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 for specific topics and to review special exhibits are also on the agenda.



- A new publication introduced earlier in the year by the Oughtred Society: ***Pencil Slide Rule and their Successors, The Calculator Pen and Pentop Computers***, a collection of articles that covers this subject most admirably, authored and edited by one of our Oughtred Society founders, **Rodger Shepherd**. This publication is now available for sale on our website.
- All of the files from Tom's efforts on the Curta book have been recovered, including information from his hard drive, numerous CD's, and much related research information on paper. An intense effort was undertaken from several OSPC members to filter and reconstruct the many files and then add new information that Tom had been developing with Bob Otnes. The team has reconstructed the book which is now ready for publication. Special thanks to the core members of this committee: **David and Donna Sweetman** for driving the overall effort and assuming the role of managing editor, and **Otto van Poelje** for proofreading the entire manuscript and making corrections, especially those to German words and phrases that were lost in recovering the files. Many hundreds of hours were spent by these members and other key contributors **Richard Davis**, **Peter Alfeld**, and **Heinz Joss**; all have made significant contributions to the readiness of the final publication copy. At the July Board of Directors meeting, an initial publication of 200 copies was authorized. We expect this significant work to be ready and listed on our website by October.
- **We now have four collections featured in our Oughtred Society Archive of Collections!** The listings have grown markedly during the first half of this year and now include items from the collections of **Paul Tarantolo**, **Louis Gotlib**, and **Richard Davis**, as well as those from the **Thomas Wyman** Collection. The number of pieces from the Wyman collection continues to expand and with the addition of the other three collections, many new detailed listings and pictures in several specialized areas of collecting are now available for historical and technical research. Paul's collection features numerous examples of early Otis King slide rules, circular pocket-watch-type rules, many variants of Fowler Calculators, 19th century sectors and a huge number of specialized Keuffel and Esser slide rules. Louis's collection includes many examples of Aristo, Fearn and Mear, and Pickett specialty rules. Richard's listings feature multiple unusual examples of Hemmi, Aristo, and special-applications rules by Pickett. This tremendous project continues to grow thanks to the direct work of these new members whose collections are featured as well as the continuing direction and efforts of **Clark McCoy**, **Rod Lovett**, and **Richard Davis**. Be sure to check out all of the new collections and pictures at the link: <http://osgalleries.org/collectors/>
- **Our Oughtred Society website** continues to be a significant source of information for many members and organizations interested in the history of calculating rules and devices. Continued thanks to **Richard Davis** for assuming this responsibility and keeping our online presence fresh and updated!
- **Discussions are in progress to reestablish a Fall Meeting on the east coast, possibly as early as this fall**; please contact members **Ben Strange** or **Louis Gotlib** with your interest in this meeting.
- **Continued sale of remaining pieces from the Wyman Collection.** Additional logarithmic slide rules were offered and sold at the Annual Meeting auction and many 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.
- **Continued organization and categorizing of the numerous items from the Bob Otnes Collection of slide rules and calculating devices in preparation for sale on eBay and other venues.** The job ahead still remains very large; we have successfully obtained commitment from several members who have joined the effort; additional volunteers to assist in scanning

and selling items from the collection planned for eBay and meetings in the coming year continue to be sought. Please contact oughtredsociety@comcast.net with your interest.

- **Publication of the Spring and Fall 2017 editions of the Journal of the Oughtred Society.** Again sincere thanks to **David and Donna Sweetman** for their many hours of dedication to the management and layout efforts of our fine Journal. The Fall 2017 edition is on schedule, all articles for the Spring 2018 edition have been finalized and articles are now being considered for the Fall 2018 edition. David has requested additional assistance to assume responsibility for editing and layout; please contact him directly at david@quadd.info with your interest.

Through the hard work and dedication of many members, we continue to make excellent contributions to the global community interested in the history of logarithmic devices, slide rules and other mechanical calculating devices. Thank you for making 2017 yet another year of outstanding progress!

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

IM 2017 in Sept. 22-24 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 hotel reservation! The room rates are modest. 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.

The IM will run from Friday 1:45pm to Sunday noon. It will take part at the Arithmeum, a very special and 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. The Arithmeum is a very special place; 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: *300 years of logarithmic computation in German speaking countries* at the Arithmeum. 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 these original items from many first class collections, a once in a lifetime chance and experience.

We make a special invitation to our non-European OS members. That, of course, mainly means members located in the US, the IM2017. 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 a 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 touristic 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 *fall, 2017 issue of the OS Journal* is in near ready to go to the press. Below is the table of contents. If you have or are thinking of a paper for the OS Journal, contact David. Please take note that his email address has been changed to:

david@quadd.info

The Fall 2017 Issue of JOS

Note from the Editor
Note from the President
In Memoriam: David McFarland
IGN Logarithmic Circle
Method of Teaching Slide Rule in Historic Sequence
Norma Gambrinus Circular Slide Rule
The Slide Rule Explorer
Unusual Cursors
A Poor Man's Collection, Part 2
How to Photograph Slide Rules the Easy Way
Notes on the Choice and Use of a Flatbed Scanners
for Scanning Slide Rules
Additional Biographical Elements on Tavernier and the Lenoirs
The Best Slide Rule
Determining Slide Rule Algebraic Operations

David Sweetman
Robert De Cesaris
Sarah McFarland
Jose Fernandez
Stephan Weiss
Richard Davis
Peter Alfeld
Phil Stanley
Roger Dollarhide
Roger Dollarhide
David W. Walker

Marc Thomas

T.P. Hazard
Tom Hazard

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, 15 new members joined the Oughtred Society.



Juan Jose Parra Mayorquin
Michael Mounts
James Montren
James Ryan
George Earle
Walter Adams
George Anderson
Mark Johnson

Jason Mills
Giulio Milanesio
Terry Szink
Bennett McAllister
Sara Frankel
Noel Zinn
Michael Vinarcik

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. So far a total of 378 members signed up for Oughtred Society memberships in 2017.

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

<clarkmccoy2@comcast.net>

Reported by Clark McCoy

More on Slide Rules as an Artform

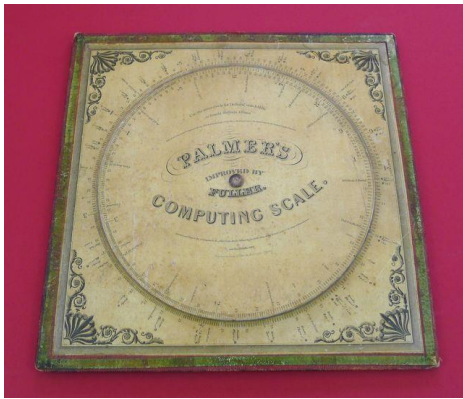
As I wrote in the last newsletter, I have prepared a paper for **IM2018** on the subject of slide rules as an artform. Not many write about the artistic qualities of slide rules, but there are many with artistic flourishes, even some that have been incorporated into paintings and sculptures. And in displays, 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



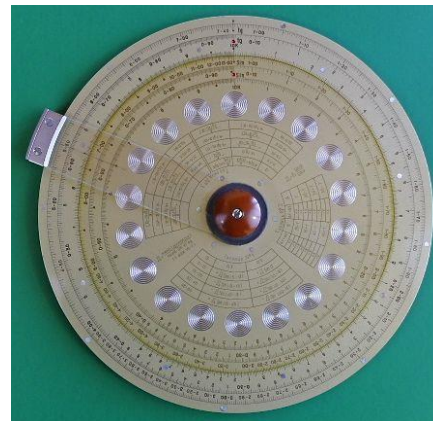
Palmer's Computing Scale c1850



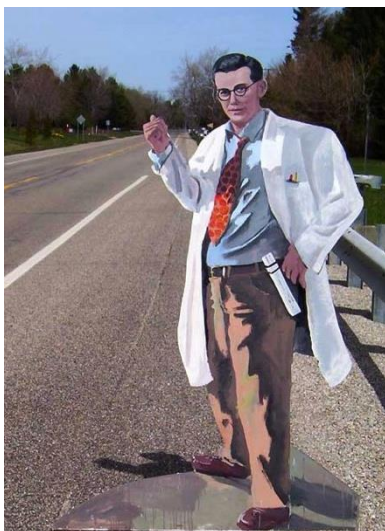
A Slide Rule Display by Ed Chamberlain



Figurine of Engineer with a slide rule by Bencini



**Russian Artillery Slide Rule
Beautifully made with enameled surface**



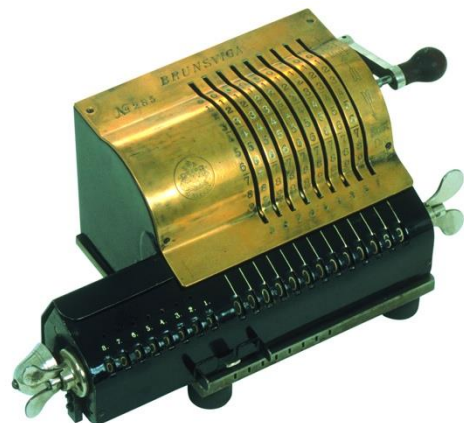
Painted cutout of Frederick Emmons Termann by Jim Pallas. This is a full size cutout painting of a hitchhiker standing along a roadside waiting for a ride. Note the slide rule hanging from his belt. This is an image of no ordinary person. **Fred Termann** was a leader in the electronic computer revolution at Stanford University. This was a part of a student project to study if cutout paintings of people placed along side a highway could get rides. Instructions for Termann's destination were printed on the backside of the cutout. This cutout started its trip at MIT in Cambridge, MA and made it all the way to Stanford University in Palo Alto, CA. The slide rule was obviously the secret to its success in reaching its destination! It would have been nice if the cutout could have told the story of its adventure.



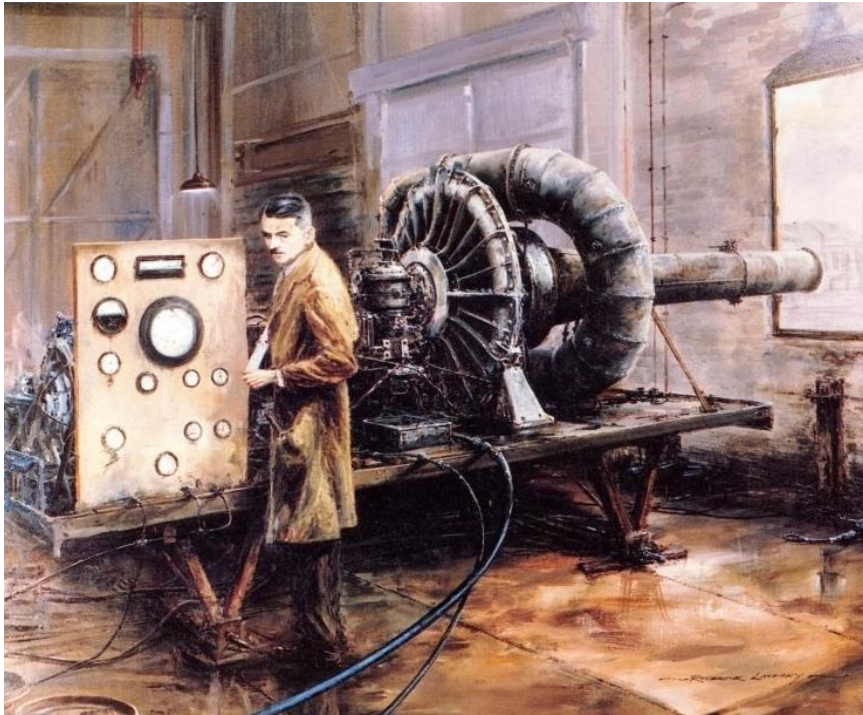
Bronze sculpture of Neil Armstrong on campus of Purdue University in Lafayette, Indiana



Engraving of students learning to use a slide rule. In a Denert & Pape advertisement. Note that none of the students are watching the person working the demonstration slide rule.



Blaise Pascal Rechenmaschine and Brunsviga Pinwheel Calculator - Arithmeum Museum



**Sir Frank Whittle, inventor of the jet engine, with his trusty slide rule.
Painting by by Roderick Lovesey. From Inst. Mech. Engrs, London**

Reported by Ed Chamberlain

Final note from your editor.....

I am always looking for fresh material for the OS Newsletter. If you have any thing slide rule or historic calculator related that you want to report on, send it to me, and I will work it in.

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