

# The Worldwide Largest Bibliography Database on the History of Mechanical Computing Devices is Online!

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In September 2012, the worldwide largest bibliography on the topic of mechanical calculating devices and tools<sup>1</sup> was published. The publication had grown over 13 years until the book was printed during my professional time at Bangalore, India.

On 1,564 pages, more than 18,000 different references covering the topics of mechanical calculation (e.g., slide rules, calculating machines, planimeters, nomograms, etc.) have been documented. About one half of the references are related to patents in the mentioned domains.

More details and information as to how to purchase a copy (A4 size, 4 kg weight, and price 69 Euro plus shipment) can be found on the Internet pages<sup>2</sup> given in the references.

In the JOS article *A 13 Years Project - An Adventure with Pain*<sup>3</sup>, I described how this “printed database” came to life. In the same article a promise to the collectors and buyers of the book has been given, which I would like to paraphrase here again:

**Prolog:**  
You might ask: Will the story continue?

The answer is “yes, I am still interested in the topic”. But it will be done with a different approach.

All owners of a book copy have access to the online database, which is available on my Internet page <https://zerfowski.com/index.php>.

In the database the latest updates are also included. But you need to have the book at hand to get access to the database. You can order directly via an email to myself. I am still recovering from my investment.

Now is time to fulfill my promise: Starting immediately, the entire database is available online on my web page<sup>4</sup>. In addition to the complete contents of the original book, more than 2500 new references have been added and additional new content is continuously being added.

The online query sheet (See Figure 1) provides a search interface for authors, publication titles, patent number ranges, free text search, etc.

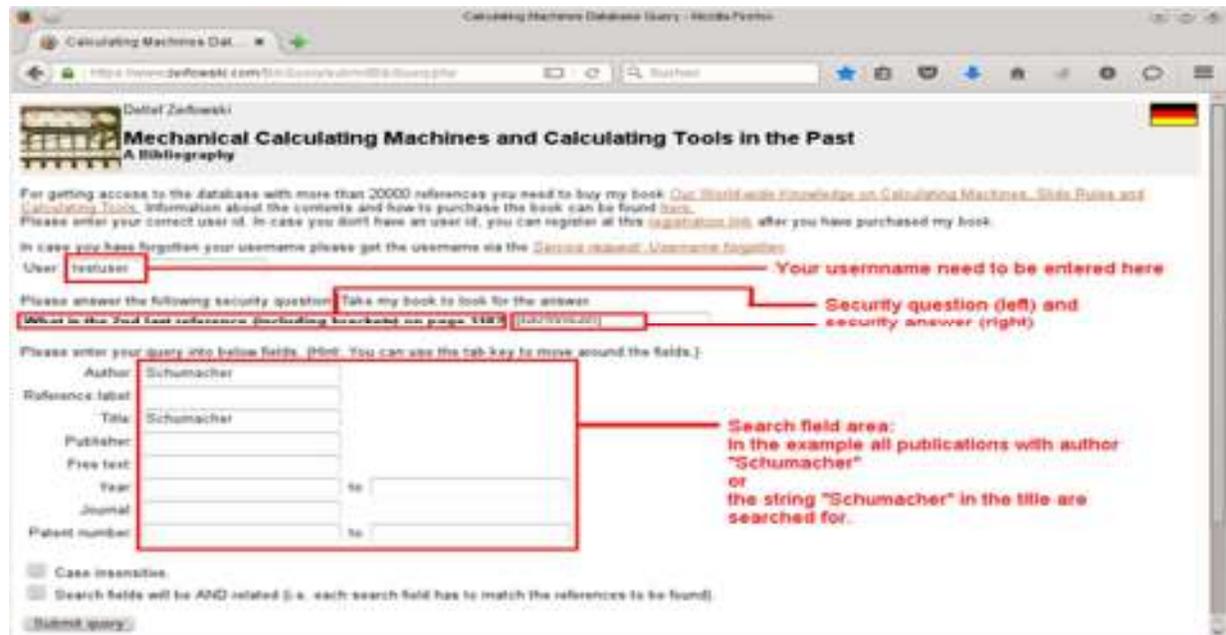


FIGURE 1. Database Query Interface

After pressing the “Submit query” button the search results are immediately presented on a separate page (see Figure 2).

Together with the retrieved references, publications cited by the reference are shown, as well as publications that are referring to the found references.

Most of the patents available on the internet have been directly linked, so corresponding pdf-files from different patent resources may be opened with one click (i.e., no additional search in the corresponding patent databases is required).

For topic related searches this mechanism can be efficiently used to find already published information on the subject of your interest.

### How to Get Access to the Online Database?

Here is the step-by-step approach:

#### 1. One Time Registration:

Register to the database via the link <https://www.zerfowski.com/BibQuery/registerDB.php> or use the registration link given on the internet page<sup>4</sup> in the references below.

Enter a user name of your choice (remember the user name) and a valid email address (See the example in Figure 3). If the user name is not available anymore, please choose a different one.

The German language version of the Internet page can be reached by clicking on the German flag. Anybody having a copy of my book at hand can access the database within a few minutes.

#### 2. One time account activation:

After step 1, an activation link will immediately be sent to your email address. You will need to open the corresponding email and click on the provided activation link.

Calculating Machines Database Query - Mozilla Firefox

Calculating Machines Database Query

http://www.zerfowski.com/BibQuery/BibQuery.php

Detlef Zerfowski

**Mechanical Calculating Machines and Calculating Tools in the Past**  
A Bibliography

Your query was: (if you want to modify your query, please press the back arrow at the right side.)

Author: Schumacher  
Title: Schumacher

And here are your results:

[McC2015-2]  
McCarthy, Jerry: **The Schumacher Slide Rule. A Slide Rule with Divisions at Equal Intervals**, IM 2015 Proceedings. From Legarithms to Algorithms: Bridging 400 Years of Scientific and Computing. 21th International Meeting for Collectors of Historical Calculating Instruments. [Aug2015]. The Oughtred Society, 2015, pages 77-89. Note: Cites [Hol2009-1, Sch1909-2, JezWeiZer2004, Kie1911]. **The article [McC2015-2] cites the four marked references, which can be found in the database as well.**

[McC2013-6]  
McCarthy, Jerry: **The Schumacher Slide Rule - A Slide Rule with divisions at equal intervals**, Computing for Science, Engineering, and Production. Mathematical Tools for the Second Industrial Revolution. Proceedings of the 19th International Meeting of Collectors and Researchers of Historical Computing Instruments. [Kie2013-1], BCD - Books on Demand, Norderstedt, www.bod.de, 2013, pages 229-242. Note: Cites [Hol2009-1, JezWeiZer2004, Kie1911, Sch1909-2].

[Sch1934-1p]  
Schumacher, Ernst: **Improvements in Computing Apparatus for Transferring Coordinates**, 22nd March, 1934, Roon-Strasse 12, Kiel, Germany. **British patent** [patent 413400](#). Application filed 22.03.1934, Serial no. 8970/34, Complete specification accepted 16.08.1934, Germany, 23.03.1933. **The linked British patent can be opened with one mouse click.**

[JezWeiZer2004]  
van Jezierski, Dieter and Zerfowski, Detlef and Weinmann, Paul: **A. W. Faber Model 366 - System Schumacher. A Very Unusual Slide Rule**, Journal of the Oughtred Society, Vol. 13, no. 2, 2004, pages 10-17. Note: Cites [Sch1909-2, Wie1909-1] and [Fab1908-2p]. Available in the internet at <http://oogalleries.org/journal/displayarticle.cgi?match=13.2/V13.2P10.pdf>. Cited in [Jez2005-3, Hol2011-1, Zer2013-2, McC2013-6, McC2015-2]. The slide rule shows the patent number of patent [Fab1908-1p]. **The article [JezWeiZer2004] has been cited within the marked references, which can be found in the database as well.**

[Sch1909-2]  
Schumacher, Jeh.: **Ein Rechenschieber mit Teilung in gleiche Intervalle auf Grundlage der zahlentheoretischen Indizes**. (D.R.G.M. Nr. 344576). Für den Unterricht konstruiert. J. Lindauersche Buchhandlung, Schöpping, München, 1909. Note: 48 pages + figure of D.R.G.M. No. 344576 [Fab1908-2p]. Slide rule for solving module congruences. Cited in [JezWeiZer2004, Zer2013-2, McC2013-6, McC2015-2]. Available in <http://wechreflexikon.de/files/Schum1909.pdf>. English translation in

FIGURE 2. First Part of the Search Results

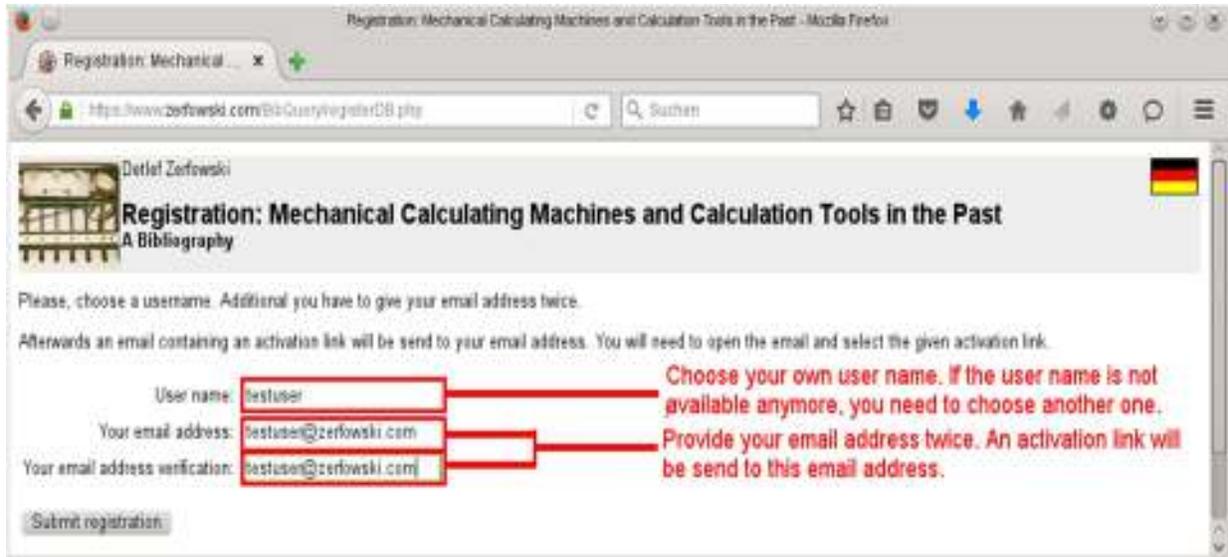


FIGURE 3. Registration Page

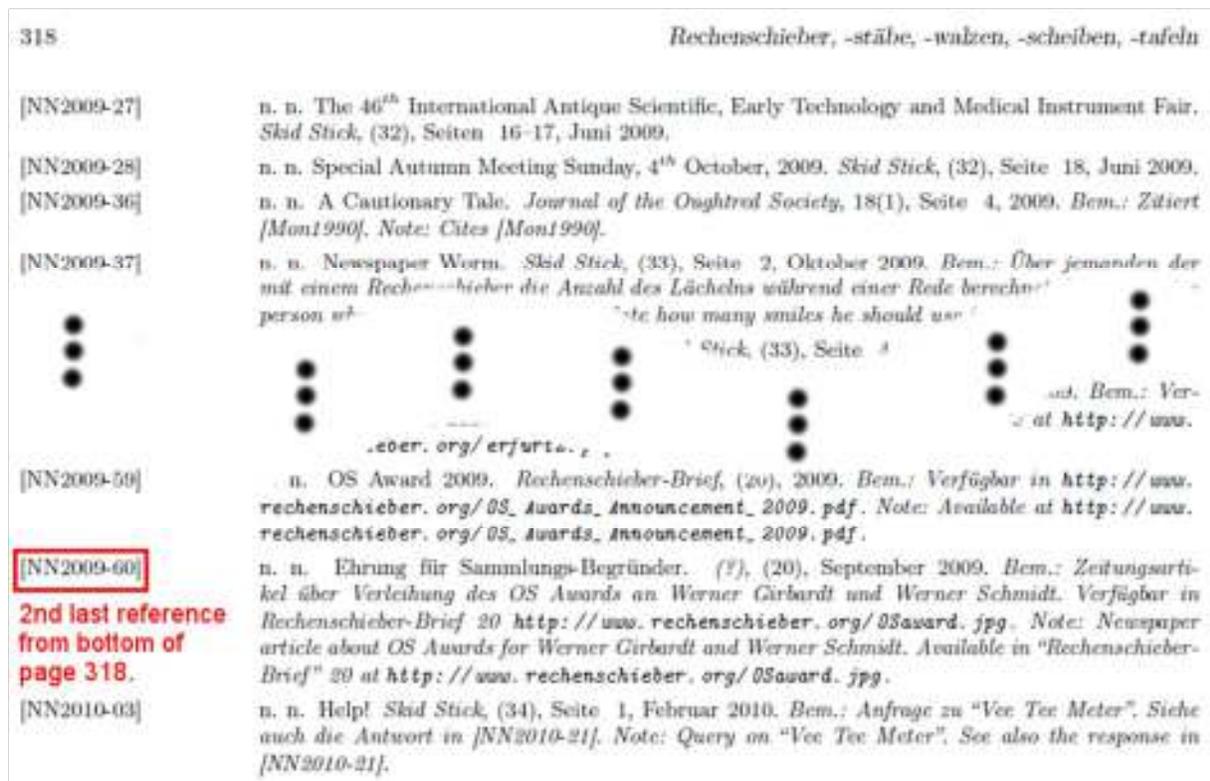


FIGURE 4: Finding the Answer to the Security Question (On Page 318 of the Book<sup>1</sup>)

3. Access the database:

You can immediately use the online database at any time provided you have access to your copy of my book. You need to enter your user name (from step 1)

and to answer a security question. The answers to all security questions can be found in my book. For example, the security question asks for the 2<sup>nd</sup> last reference on page 318.

Figure 4 partially shows the corresponding page of the book that contains the answer to the security question. **IMPORTANT:** You need to enter the reference label *including brackets*.

The security questions are changed on a daily basis according to Central European Time (CET). Therefore, the security answer will typically be valid through your entire search session. The only exception occurs when your query session continues past midnight CET.

In the example (See Figure 1), I searched for publications by “Schumacher” or with the string

“Schumacher” in the publication title. Figure 2 shows a part of the search results.

I hope this additional service will be used by the collectors of slide rules and other mechanical computing devices. Any feedback, corrections, or additional contributions to the database are very welcome.

In case of any problem or for purchase orders for the book, please feel free to contact me directly via email ([Detlef@Zerfowski.com](mailto:Detlef@Zerfowski.com)).

### References:

1. Zerfowski, Detlef, *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*, self-published, Bangalore, India, September 2012.
2. Internet page of Detlef Zerfowski: <https://www.zerfowski.com/rechengeracte.php?language=english>
3. Zerfowski, Detlef: *A 13 Years Project - An Adventure with Pain*, Journal of the Oughtred Society, 22:2, 2013, pages 26-30.
4. Detlef Zerfowski's Online Bibliography Database on *Mechanical Calculating Machines and Calculating Tools in the Past*: <https://www.zerfowski.com/BibQuery/submitBibQuery.php?language=english>