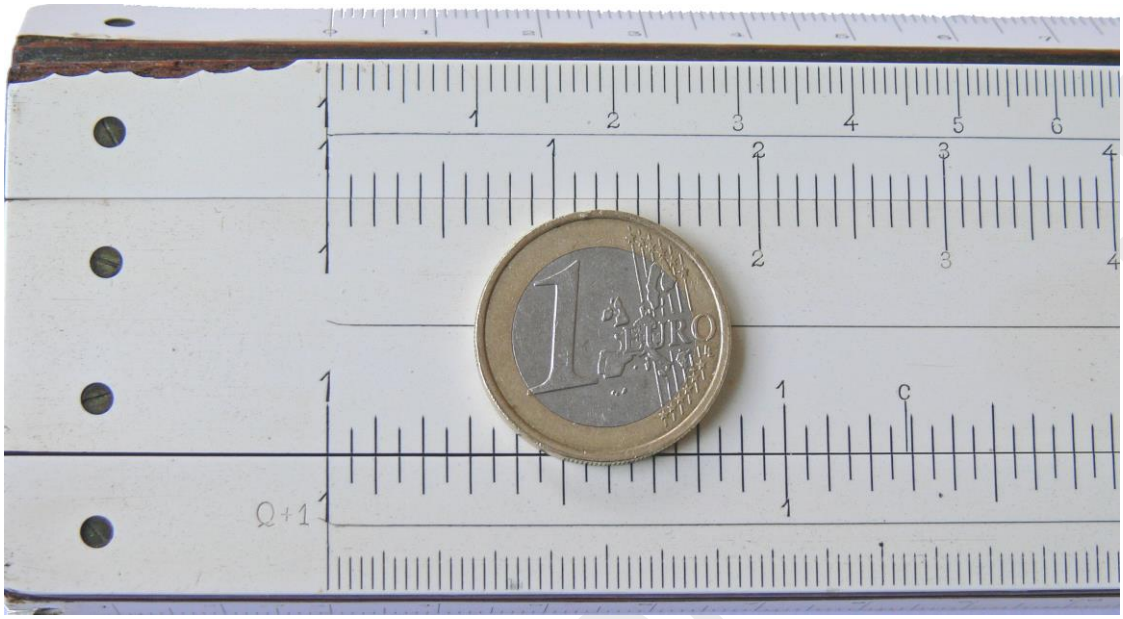
MAXI Desktop Slide Rule

Owner: David G Rance

Picture (left-hand end only – 1 Euro coin included for size comparison)**:**



Purpose of the Slide Rule:

At first glance this MAXI rule looks a bit of an anomaly – surely too big to be a Desktop rule but too small to be a Demonstration rule. So what is it? Most of the main manufactures traditionally made, at most, two types of "oversized" linear slide rules:

- 40/50/60cm Desktop slide rules
- 1-2m Demonstration rules

For most manufacturers large Demonstration rules were not part of their standard product range or even considered "special commissions". Instead they were usually a crudely made "blown up" versions of a popular standard model. They were sometimes used for advertising but more often for teaching *"How to use a slide rule"* sessions. Clearly the primary role of a Demonstration rule was to show how various calculations could be performed on a slide rule. As such, the accuracy of the rule was secondary to legibility. Indeed most of the early Demonstration rules were notoriously inaccurate – made from a cheap(er) wood such as pine or poplar and brightly painted. Certainly none of the scales on a Demonstration rule would have been etched or incised by a "dividing engine". Instead most of the company branded Demonstration rules were inevitably hand-made by a local or in-house carpenter.

In contrast, most of the leading commercial slide rule manufactures had one or more linear Desktop slide rules in their product range. Such models were 40cm, or more commonly 50cm, long and were engineered to the same degree of accuracy as their other linear slide rules – i.e. the pocket 10-15cm or the standard 25-30cm rules. Desktop models were twice or three times the price of a 30cm rule – a price justified by claims that they were more accurate than a standard 30cm linear rule. But this claim is largely unfounded as most of the chosen Desktop scale layouts were just enlarged/stretched versions of a 30 cm rule. A few did use the extra long stock to increase the number of divisions or tick marks. But the main advantage of such larger sized Desktop models would have undoubtedly been visual – i.e. with any Desktop linear rule, it was

easier to set more accurately the values for the any calculation and read off more precisely the calculated answer shown by the cursor hair-line(s).
For the majority of the manufacturers their output of Desktop rules was less than 5% of their total production – for some, it was as little as just 1%. But only one commercial manufacturer was capable of scaling up their production of linear slide rules to cater for stocks longer than 60cm. The "dividing engines" designed and built for the renowned German manufacturer **Nestler** could produce a 100cm Desktop slide rule. Like others, Nestler did have 100/150/200cm Demonstration rules. But they were the only manufacturer to have four 100cm Desktop models (the 2c, 19a, 24b and 24 R/1), made to the same exacting production methods as all their other precision linear slide rules, in their product range. For all the other manufacturers, anything longer than 50cm, or 60cm at most, could not have been manufactured on the production machines they had on the shop floor.

Dimensions:

- **Stock:** 106 cm (D scale 100cm) x 6 cm x 1.6 cm.
- **Slide:** 106 cm x 2.8 cm x 0.6 cm
- **Cursor:** sadly missing

Material:

- **Stock:** mahogany base with celluloid veneers secured with 8 German sliver screws (2 either end of the front face of the stock and 1 at either end of each the two edge scales).
- **Slide:** mahogany with celluloid veneers secured with 8 German sliver screws (2 at either end of the front and back of the slide).
- **Cursor**: sadly missing but would have been a closed frame metal and glass type, possibly with 3 hair-lines.
- **Finishing**: all the scale divisions, gauge marks, etc highlighted in black ink.

Simplex layout and scales:
A solid frame classic "System Rietz":

- **cm / K A = B C = D L | cm // S T**

The top bevelled edge cm scale runs from 0 -100.
The A / B scales runs from 1 -100 and C / D scales from 1 -10. However, the number of divisions is identical with the equivalent Nestler 50 cm Desktop rule – i.e. sadly the 100cm scale does not have double the number of scale divisions as the equivalent 50cm Desktop rule (see: **Picture**).
The bottom straight edge cm scale runs from 0 – 106.
This layout and arrangement of scales conforms to the 100cm Desktop slide rule **- model 24b**

Designer and date:
The scale layout must obviously be attributed to the German engineer Max Rietz (1872-1956). But the style of the company name, **ALBERT NESTLER LAHR ᴵ/B**, found in the well of the stock, and in particular the way "ᴵ/B" in "LAHR ᴵ/B" (Lahr in Baden) is inscribed superscripted, shows that this was one of the earliest 100cm Desktop slide rules ever made by Nestler and dates from a short 4-year period: **1908 - 1911**.

Final remarks:
Besides the example shown, only two other Nestler 100cm Desktop rules are known still to exist. One is owned by the Nestler family and the other is part of the collection of Hans-Peter Schaub. The model numbers of the other two are unknown.
If anyone ever happens to come across an unbelievably big and wide cursor, please keep my "MAXI" Desktop slide rule in mind!