

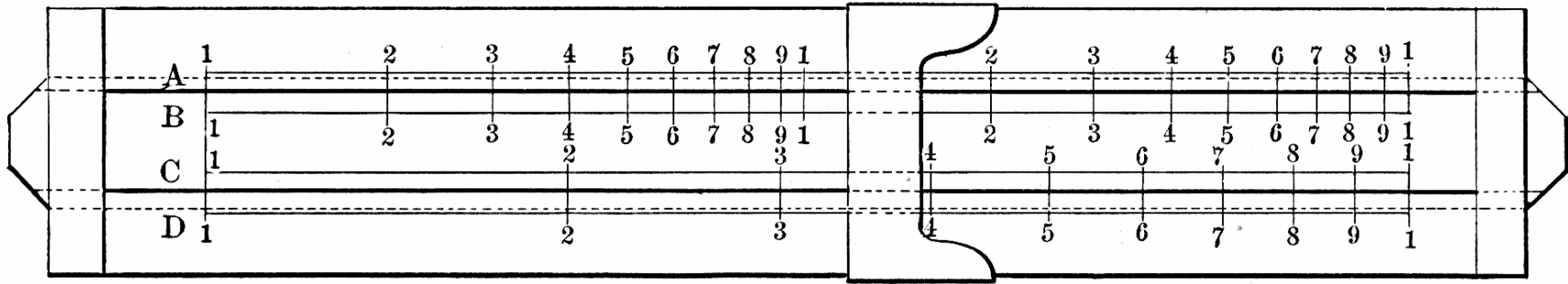
# The Cox Duplex Slide Rule and Mannheim Slide Rules

*Bob Otnes*

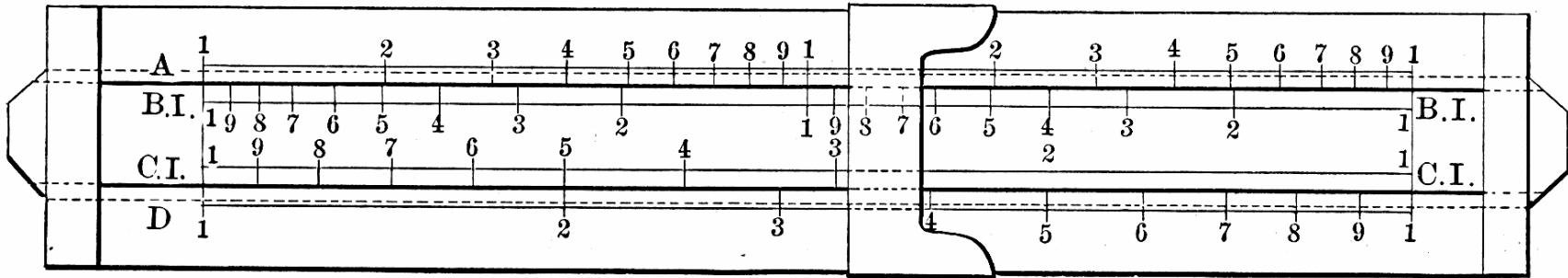
Notes and Questions  
Regarding Dennert & Pape  
Versions of the Rules

# The Cox Duplex

Patented October 6th, 1891.

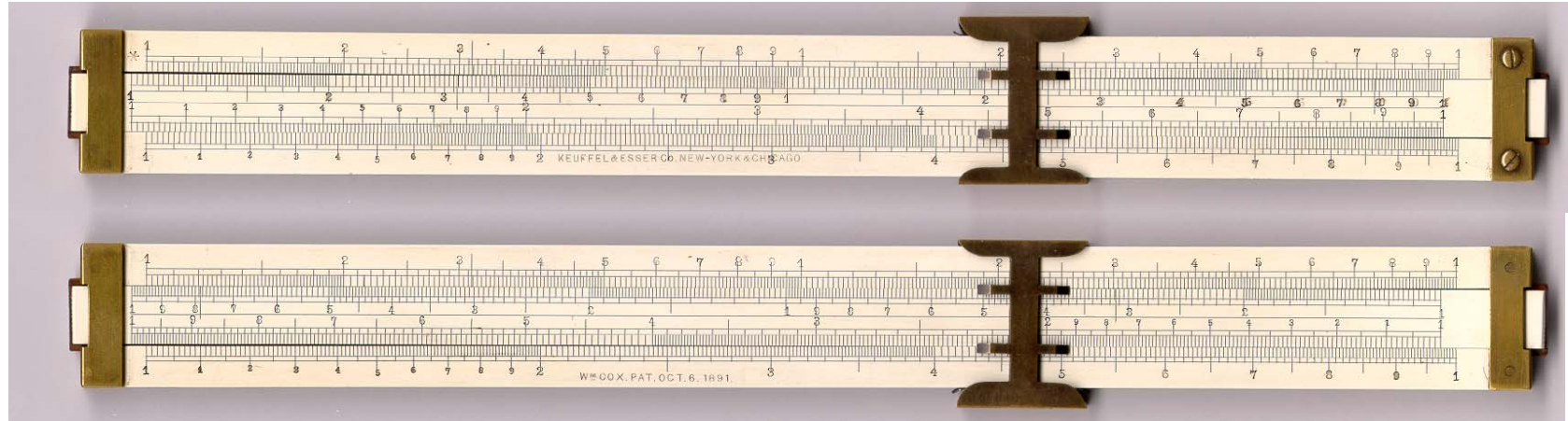


Upper Face.



Under Face.

# The Cox Duplex as Made



- Classic Mannheim design.
- Rule was made by D&P according to H.D.
- Stamping of numbers somewhat crude: done by K&E?

# Duplex, Continued

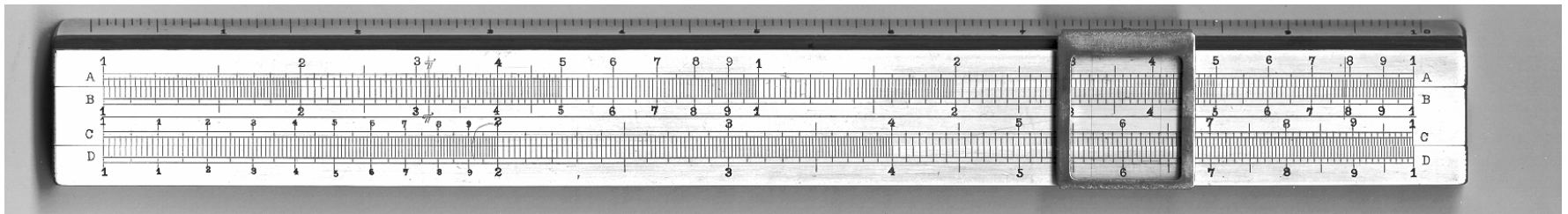
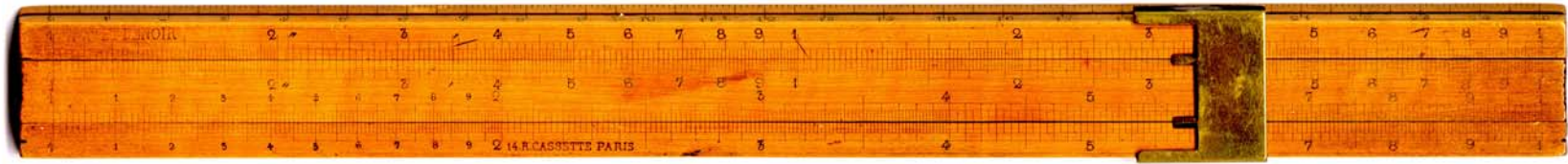
- A major objection at the time to the Mannheim was that the slide could not be reversed; reversal was convenient.
- In 1891, there were only four scales on the face of the Mannheim, the duplex was a solution: a double sided Mannheim.
- Later, the ability to put more than four scales on the face caused US and German rules to go through a second stage of development.

# Continued

- I bought the Cox Duplex in the 1980s. It got me interested in slide rules and K&E.
- I wrote a two part article for *Historische Burowelt* in 1989 on K&E and hypothesized that D&P made the Duplex.
- Hans Dennert contacted me and we had a meeting in Cologne. He told me yes, but no proof.
- Then the Rosetta rule showed up.

# Gravet Lenoir

An Early Mannheim: CA 1851 to 1867.



A and B single cycles have 140 points; C and D cycles have 340 points. + 1?

Typically there are nine horizontal “embellishment” lines.

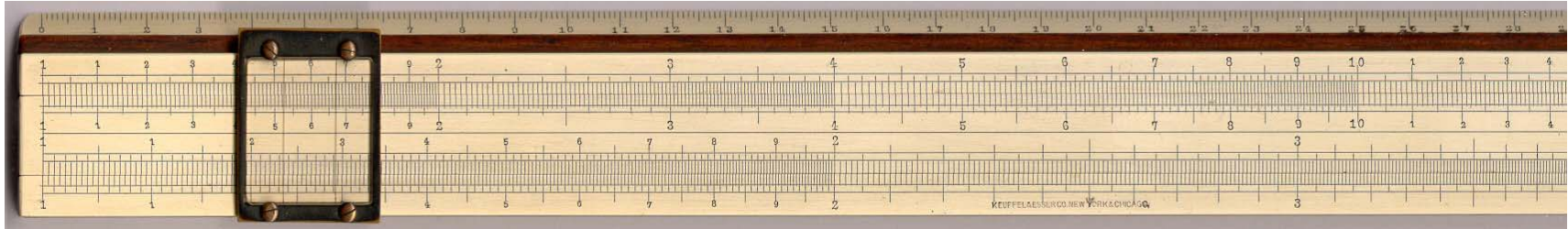
Most of the rules discussed today will *not* have the letters A, B, C and D.

# Nine Rules – Their Characteristics

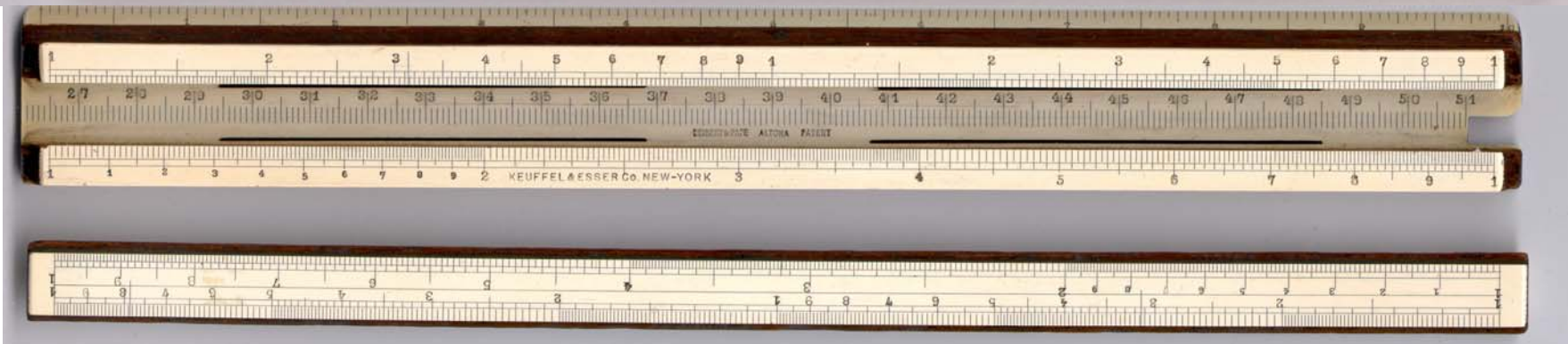
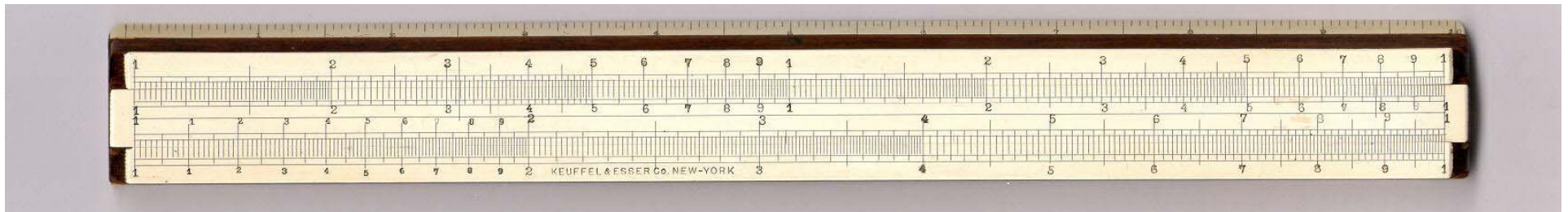
- Eight have 25 cm scales; one has 50 cm.
- Space at ends varies from 0.5 to 1.0 to 1.5. cm.  
Apparently, small end space => older.
- Measuring scales are metric or English depending on market.
- Back of slide *usually* has S T and L scales.
- Often the gutter has extended cm scale.



# Two Early Rules for K&E



50 cm; 0.5 cm at end; makers name in gutter ground out.



Bottom: The Rosetta Rule; In gutter, “DENNERT & PAPE ALTONA PATENT”.



# Other K&E Sources

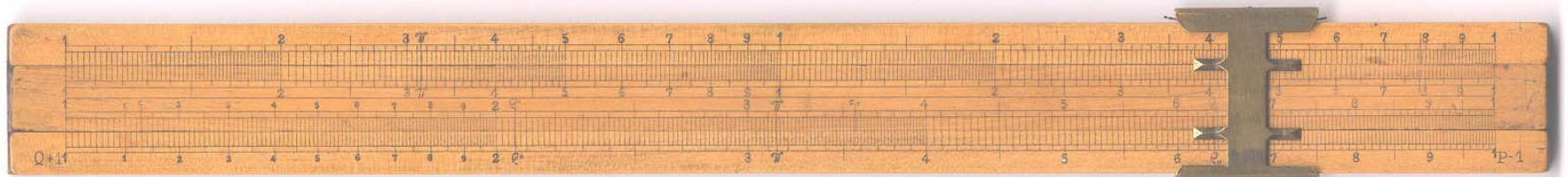


- A Tavernier-Gravet after 1889.
- 20 cm scales on a 21 cm stock.
- K&E also *may have* sold rules by Rabone.
- These would have been “engineer’s” or “Gunter’s” rules.

# D&P and Lilley



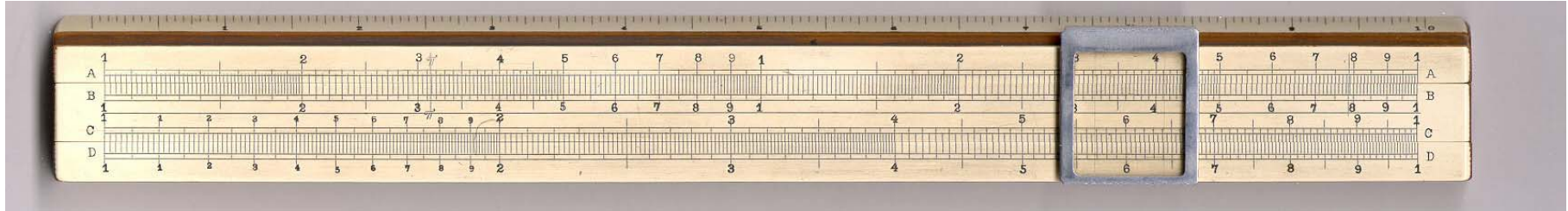
D&P Altona, still 0.5 cm at the ends.



Lilley and Son London; 25 cm scales, now with 1 cm at the ends. Gutter empty.

Does not look English made. If not, then whom?

# Dietzgen Made by D&P

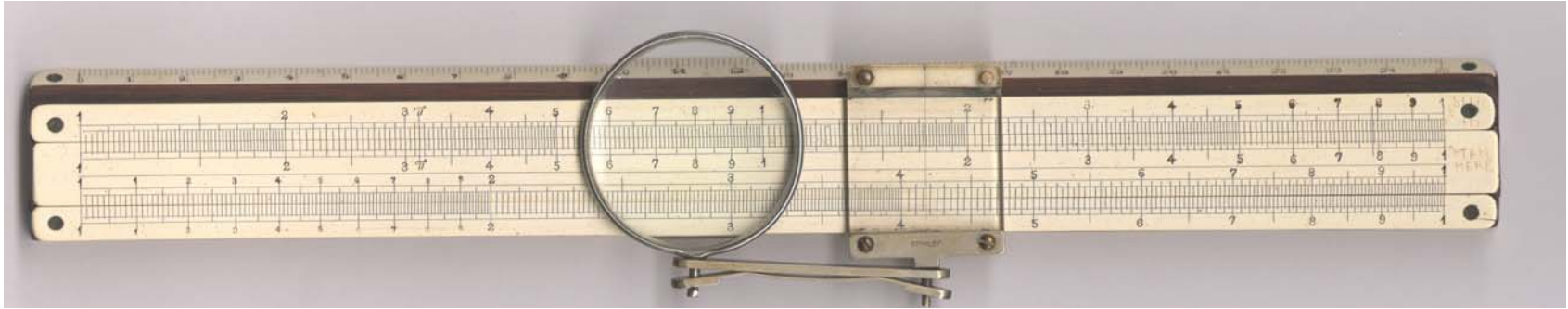


“D&P EUGENE DIETZGEN CO. CHICAGO AND NEW YORK” in gutter.

1.0 cm space at ends. Only one of the nine with scales lettered.

Eugene’s father was an anarchist; his picture was on an East German stamp.

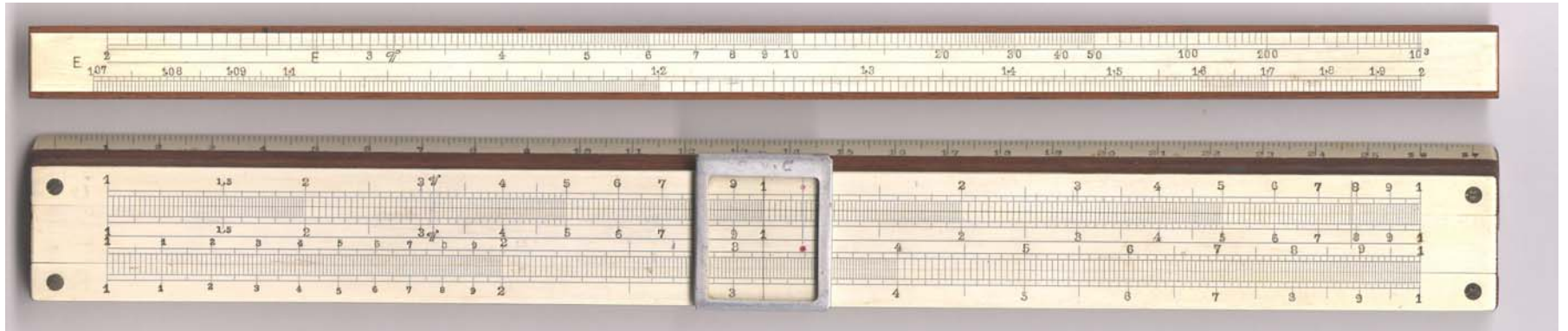
# Stanley London Nestler



In the gutter, says “A.N. D.G.R.M. 164885”.

Runner is unusual with a high quality, erecting magnifier.

# John Davis and Son Log-Log



Rule comes with an extra slide with log-log scales on both sides.

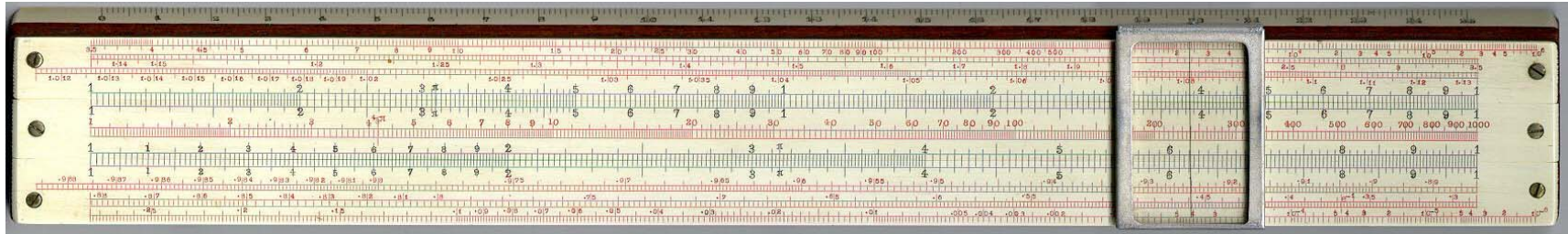
Hans Dennert told me that D&P made the Yokota log-log rules for John Davis.

Because of this, I assumed that D&P also made the above rule. Did they?

Has “D.R.P. No. 126499” in the gutter.



# The Yokota Log-Log



- Sold by John Davis & Son (Derby), England.
- “Made in Germany by Dennert and Pape.” H.D.
- “The only rule with 10” scales that Dennert and Pape ever made.” H.D. The inch scale on the bottom edge was in decimal inches; in connection with the runner, a log scale.
- Patented August 12, 1907 by S. Yokota, British Patent 18,218.
- Example is from the collection of James Bready.
- I would like to own one.