
The K&E Hudson 8

Clark McCoy

I received an email from my K&E website asking if K&E ever produced the “Hudson 8” slide rule. After a few emails back and forth I found that I was corresponding with Frank Adorney, who had worked with James Bland in developing a new slide rule for K&E in late 1960 and early 1961. After seeing pictures of the final prototype that was presented to K&E, I realized that they had been working on the scale set for the K&E Deci-Lon. This final prototype was dubbed the “Hudson 9”.

James Bland had a long history with K&E. He shared authorship of the manuals for the K&E 4080-3 and 4081-3 with Lyman Kells and Wills Kern; all were math professors at the U.S. Naval Academy in 1937. Bland also shared the patent for the Power Trig Slide Rule (K&E 4110) in 1942. In 1947 Bland had a patent of his own for the new scale set for the N4080-3 and N4081-3 released by K&E in 1947. Even though K&E lost a lawsuit defending the patent, this scale set with a little modification became the mainstay of the K&E slide rule line until the Deci-Lon arrived.

The following story gives a little insight into the personality of James Bland. This story is told by Frank Adorney.

Professor “Pop” Bland, assigned to the Mathematics Department, U.S. Naval Academy, was the epitome of a professor’s professor. During one class period a student dozed off slightly and Pop stopped the class and said, “Now boys, I want to tell you something that will help you in life. When I was called to active duty for WWII, though I remained here at USNA, I attended some formal training at MIT. The summer sessions were very hot and the room was overcrowded with all of the new service members. During one crowded class in trigonometry, I was standing against the back wall and dozed off a bit. The instructor took a piece of chalk and threw it at me, and as I was startled and groaned, the class chuckled. The professor then addressed me, and said, “Young man unless you profess to know more than me, you will stay awake in my class.” Professor Bland responded with, “Sir, I don’t profess to know more than you, sir, but the book you are teaching from, I wrote.” Well, his message to us was simply stay awake and learn from the Master.

The origin of the name “Hudson” is somewhat of a mystery. In Joe Soper’s book on his years at K&E he mentions a “Hudson 1” as being a prototype for some specialized slide rule that K&E was considering. It is my theory that “Hudson” was a project name for designs being considered.

Frank Adorney was a student of James Bland in the 1950s and after graduating from the Naval Academy was assigned

back at the Academy in the Athletic Department. Bland contacted him in the Fall of 1960 and asked if Frank would help him on a new slide rule design that he was preparing for K&E.



FIGURE 1.
Frank Adorney and James R. Bland (1898-1984),
designers of the K&E Deci-Lon

Chronology of events as experienced by Frank Adorney:

1. Fall of 1960 – Professor Bland asked me if I could help him solve his dilemma in rearranging the scales of the Log Log Duplex Decitrig slide rule. His purpose was to make slide rule use easier for students. The rearrangement Bland wanted would necessarily change the manipulation of the existing rule from top-to-bottom flipping to an end-to-end manipulation. In order to facilitate conversion of the methodology, I suggested making the base and slide portions the same length and the top portion smaller, thus forming a heavy base look so the student or user could feel the correct position. The current rule in use had rails and slide of identical length. Bland accepted the proposal and asked if I could draw up a scaled model for him to review. I offered to make a working model out of cardboard.

2. I delivered a quick mock-up just for preliminary approval within a couple days.

a) Bland liked it and asked for a detailed mock-up. I made one as complete as I could, to exact scales as the then current Log Log Decitrig rule.

b) Bland brought back a spec sheet from K&E and asked if I could make one to meet their specs.

3. I made Prof. Bland a working model of cardboard that he took to class and used to get the feel. He liked the feel and asked me to proceed and make another, as he damaged the first one using it in class. I advanced the prototype to one out of teak and I transferred the hardware from some old slide rules. During this stage the concept was changed back to the traditional flip top-to-bottom style.

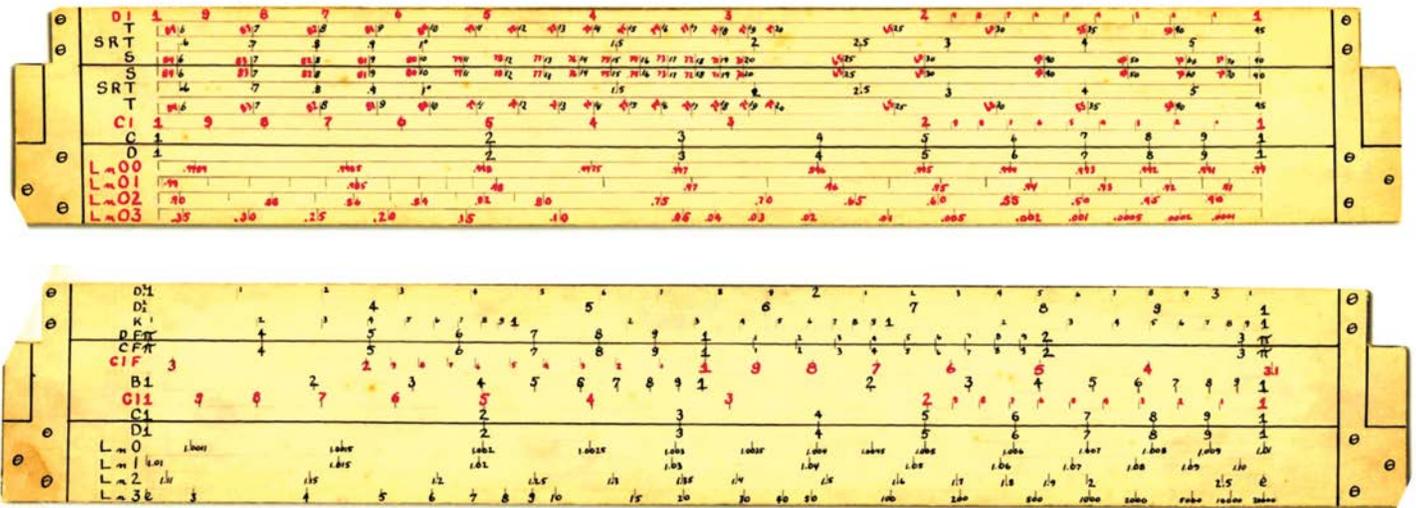


FIGURE 2.

Initial idea for end-to-end flip. Notice different lengths of frame for ease in readjusting method of use. The initial concept for the rule was to flip it end-to-end instead of top-to-bottom that had been traditional for all previous designs. There is no explanation for why this concept was dropped. K&E probably thought it was too radical.

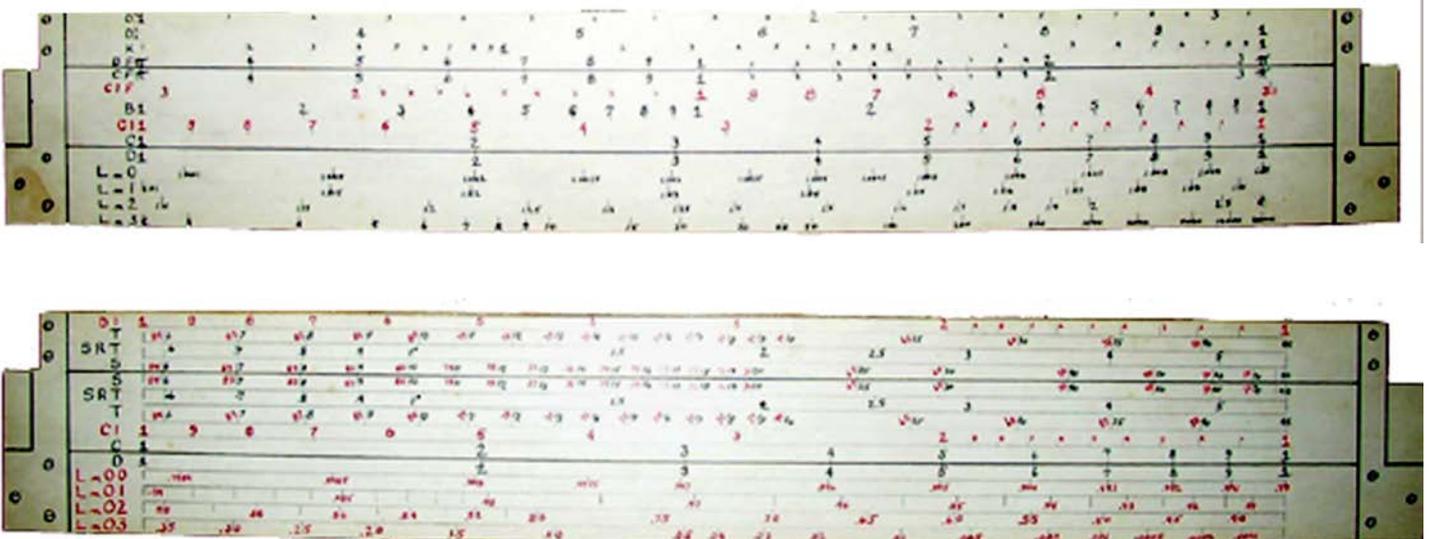


FIGURE 3.
Final mock-up in cardboard of end-to-end flip rule.

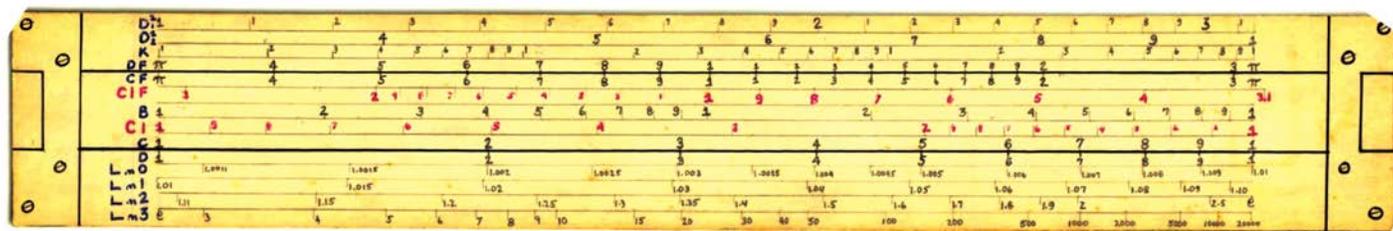


FIGURE 4.
Flat model, top-to-bottom flip.

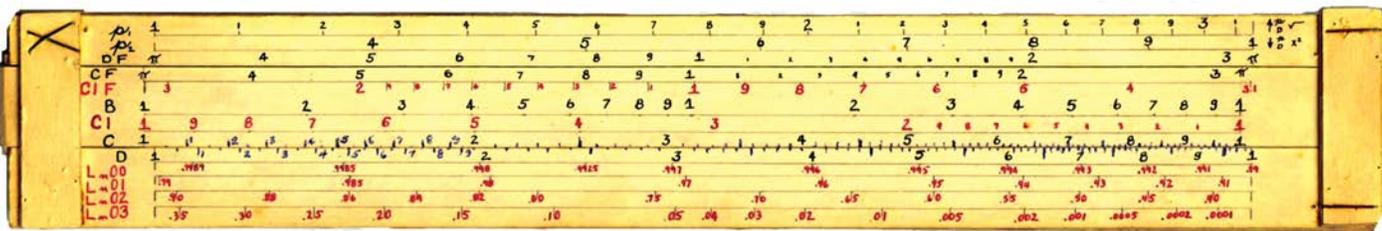
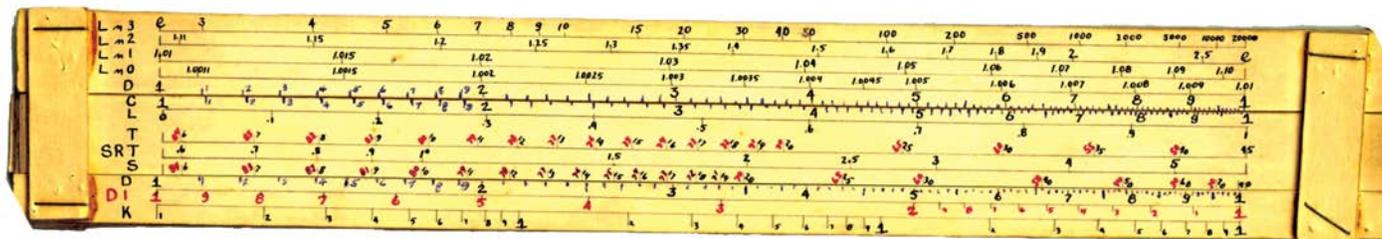


FIGURE 5.
First working cardboard model. Notice staples – crude yet effective. Rule still works today.

In a late bit of good fortune, I received two photos of the final Deci-Lon prototype made by Frank Adorney for Professor James Bland, bearing the inscription “Hudson 9, J.R. Bland, 7 Feb. 1961”. Frank recently visited James Bland’s daughter at her home, where they found this prototype in-

tact and made these photos. It has a mahogany core with paper scales. See Figure 8. The code name was changed from Hudson 8 to Hudson 9 on this final prototype possibly to prevent confusion with several previous mockups and documents named Hudson 8.

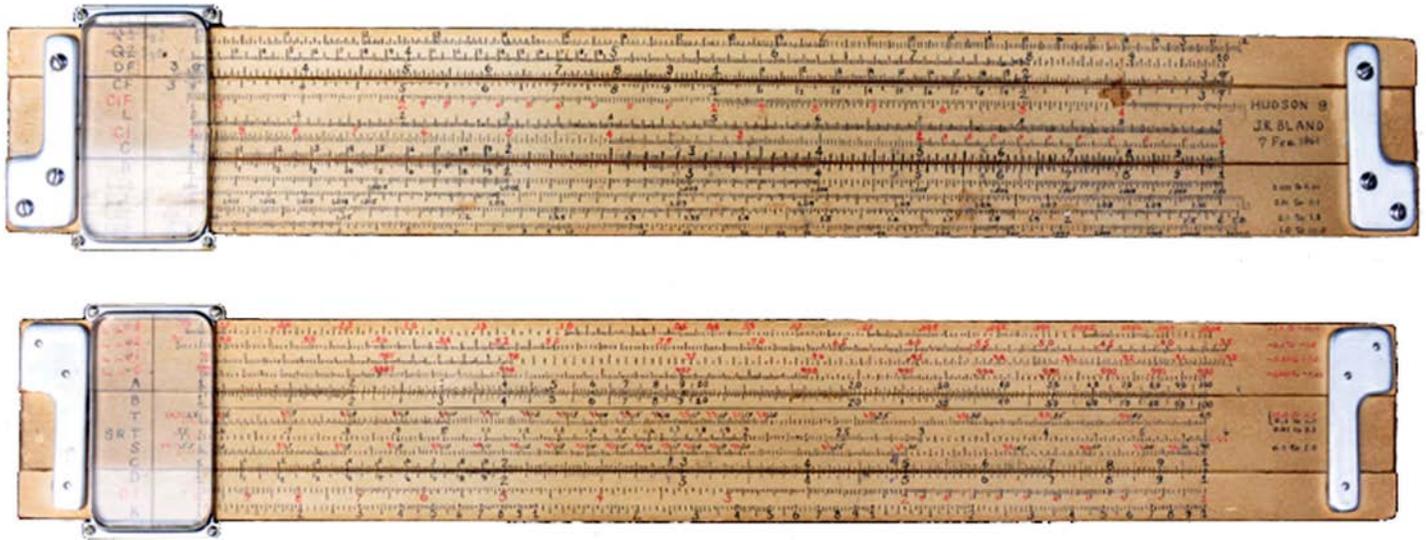


FIGURE 8.
Final prototype in mahogany with paper scales, marked “Hudson 9”.

James Bland also wrote a little poetry from time to time. His following poem was read at a dinner in his honor in 1967.

ODE TO A SLIDE RULE

James R. Bland
Circa 1967

The “Deci-Lon” slide rule at last is out,
It’s the pride of K and E,
With a wonderful set of LN scales,
Yielding logs to the base of E.

All the famous scales of the Decitrig,
Including the B and A,
Are arranged upon the Deci-Lon
In a very ingenious way.

For the sines and angles there’s the well known S,
For the tangents there’s the T
And a pair of powerful SQ scales
Give squares upon the D.

There are scales to evaluate powers and roots,
With facile and speedy ease,
Where difficult problems melt away
And lose their sting to tease.

But best of all for the very first time,
Laid out on a single face,
Is a four cycle scale of powerful Lons
Which belong to the very same race.

So here’s to Ot whom we thank a lot
For giving to K and E
This fabulous rule with its LN scales
Yielding logs to the base of E.

Clark McCoy is a retired engineer from the broadcast and tape machine industries. He mostly collects K&E slide rules, planimeters, and K&E literature. His extensive collection of K&E catalogs is the foundation for his K&E catalog website.