Edward Bowser

Edward Bowser (1845-1910) was born in New Brunswick, Canada. He was in the first class to receive the B.S. degree from the Rutgers Scientific School in 1868. Upon graduation, Bowser was hired as a tutor in mathematics and engineering, and in 1870 became an adjunct professor. The next year he was promoted to professor, a position he held until 1904. Bowser was the surveyor on the 1872 team that fixed the land boundary between New York and New Jersey. He was also a prolific writer of textbooks, writing one per year for a decade. Bowser traveled a lot and while in Syria was surprised to find some of his textbooks in use there. After his death, the royalties from his books went to Rutgers and amounted to over $15,000. Appropriately, the road on Busch Campus connecting the Mathematics and Engineering parking lots is named Bowser Road.

Bowser's textbooks were synonymous with the Rutger's math program. To be admitted to Rutgers, a student needed familiarity with the first 15 chapters of Bowser's *College Algebra*. The remaining 10 chapters were covered in the Freshman year. Sophomores used Bowser's *Analytic Geometry*, while Juniors used his *Differential and Integral Calculus*.

In 1885, Bowser published a text titled: *An Elementary Treatise on Hydromechanics*. It is noteworthy because, all through the book, medieval machines keep popping up. Bowser shows how to calibrate a medieval water clock and calculates the performance of a flap valve-the kind sailors began using to pump bilge water from sailing vessels just after Columbus.

But the real surprise with *Hydromechanics* is a long section on every kind of water wheel. Water wheels were the power source that brought Europe out of the Middle Ages. When Bowser was born, modern turbines were starting to put water wheels out of business. By the time the last edition of *Hydromechanics* came out (1921), water wheels as a major supplier of power had passed into history.

Sources

Bowser, Edward A., 1921 (7th Edition), *An Elementary Treatise on Hydromechanics*, D. van Nostrand Co., New York.

Lienhard, John H., *Engines of Our Ingenuity No. 1048: The Medieval Twentieth Century*, www.uh.edu/engines/epi1048.htm